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The Commonwealth of Massachusetts

DEPARTMENT OF LABOR AND INDUSTRIES

OFFICIALS

EDWIN S. SMITH, FRAMINGHAM, COMMISSIONER.
MARY E. MEEHAN, BOSTON, *Assistant Commissioner.*
JOHN L. CAMPOS, FALL RIVER, *Associate Commissioner.*
EDWARD FISHER, LOWELL, *Associate Commissioner.*
HERBERT P. WASGATT, WABAN, *Associate Commissioner.*

HEADS OF DIVISIONS AND BRANCHES

Board of Conciliation and Arbitration:
EDWARD FISHER. JOHN L. CAMPOS. HERBERT P. WASGATT.
Division of Industrial Safety: JOHN P. MEADE, *Director.*
JOSEPH MONETTE, *Counsel.*
MANFRED BOWDITCH, *Occupational Hygienist.*
Division of Minimum Wage: MARY E. MEEHAN, *Acting Director.*
EDWARD FISHER. JOHN L. CAMPOS. HERBERT P. WASGATT.
Division on the Necessaries of Life: RALPH W. ROBART, *Director.*
Division of Public Employment Offices: M. JOSEPH MCCARTIN, *Director.*
Division of Standards: JOHN P. MCBRIDE, *Director.*
Division of Statistics: ROSWELL F. PHELPS, *Director.*
MARGARET SHEA, *Statistician for Manufacturers.*
LESTER E. ARCHIBALD, *Statistician for Labor.*
Massachusetts Industrial and Development Commission:
BRADBURY F. CUSHING, *Chairman,* MAX SHOOLMAN, ANDREW RAEBURN, ROBERT J. WATT, PAUL E. FITZPATRICK, *Members Ex-officiis,* EDWIN S. SMITH, *Commissioner of Labor and Industries,* ARTHUR W. GILBERT, *Commissioner of Agriculture.*
JOHN T. SCULLY, *Executive Secretary.*

REPORT OF THE COMMISSIONER OF LABOR AND INDUSTRIES

To the General Court:

In rising out of the depression Massachusetts business, like that in other states, began to rid itself of the extreme examples of labor exploitation which had caused this Department so much concern last year. While wages in Massachusetts' sweatshops had never reached quite the low levels that were reported elsewhere, earnings of workers in the Fall River and New Bedford needle-trade factories had become alarmingly out-of-line with American tradition. The advent of the codes and business improvement have greatly bettered this situation and it is to be hoped that the better grade of men's and women's garment factories will continue to operate in these cities. Both Fall River and New Bedford have long suffered from lack of diversity in manufacture. Growth of the garment industry in their midst may prove a valuable addition to the cotton textile industry in sustaining their population and adding to their wealth.

REVIVAL OF TEXTILE INDUSTRY

Most encouraging, of course, not only for Fall River and New Bedford but for Lowell, Lawrence and other communities has been the extensive revival of the cotton textile industry in Massachusetts. The speculative buying of cotton and its products in the spring of 1933 followed by the definite restoration of competitive advantages which Massachusetts received through the cotton textile code have resulted in notable increases in payrolls and employment in that industry. From May of 1933 to November, 1933, the index of employment rose 54%, and in the same period the payroll index rose 80.7%.

The Massachusetts cotton textile industry has been fortunate in the leadership of a number of broad-minded and far-seeing men, such as Robert Amory and Henry P. Kendall. It was a cause for rejoicing to many who have lamented the "feudal" characteristics of the Massachusetts cotton textile industry in the past to see it, under wise direction, hastening to be the first industry to go under a code, and embarking on an apparent program of friendly relationship with organized labor.

In March of 1933 two meetings of employers and representatives of labor in the various branches of the textile industry were held in Massachusetts, one at the call of the Governor and the other at the call of the Commissioner of Labor and Industries. In view of the national action finally taken the resolution adopted at the second of these meetings on March 27 is of considerable interest. The resolution read in part:

"Whereas there exists in all branches of the textile industry serious unemployment and a serious state of overproduction detrimental to the interests of both employer and employe, be it resolved;

"That this committee recommends to Governor Ely that he appoint a committee representing the textile industry in Massachusetts, with the Governor serving as chairman, to urge upon the President of the United States and the Secretary of Labor emergency action to bring about uniform hours of labor and elimination of the employment of women and minors at night in the textile industry, and also to discuss with the President and the Secretary the furtherance of permanent action looking toward equalization of labor laws among the states."

In pursuance of this resolution a delegation consisting of Governor Ely, Henry P. Kendall, William E. G. Batty, Secretary and Business Agent of the Textile Council of the United Textile Workers of America, and the Commissioner of Labor and Industries went to Washington and laid before the President and Secretary Perkins suggestions for greater uniformity in labor laws.

Interstate Action on Labor Laws

Massachusetts having in the past pioneered so extensively in labor legislation and, in the cotton textile industry at least, having suffered a competitive disadvantage on this account*, is naturally interested in any program which looks toward unifying as well as raising labor standards in other states. A Second Interstate Conference on Labor Laws was called by Governor Ely in Boston in January, 1933. This conference was attended by representatives of the labor departments of Connecticut, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Massachusetts, and of the U. S. Department of Labor.

Like the First Conference at Harrisburg, Pa., in June, 1931, the Boston Conference adopted various specific proposals for uniform legislation and also suggested that the northeastern states should enter into a compact as a practical means of achieving such uniformity.**

An important practical step toward this goal was taken later on in the year when the Massachusetts legislature passed a bill, introduced by Senator Henry Parkman, to create a Massachusetts Commission on Interstate Compacts on Labor Laws. The members of this Commission are: Legislative members — Senator Henry Parkman, Jr., Chairman; Representative James W. Clark, Vice-Chairman; Representative Henry Cabot Lodge, Jr.; Representative James P. Meehan; By appointment of the Governor — Robert Amory; Robert J. Watt; Edwin S. Smith. Under the able leadership of its chairman, Senator Parkman, the Commission has begun the practical building up of a program for interstate action on labor legislation, which may have far-reaching results. Even if the N.I.R.A. codes, or some other form of national unification of labor standards, becomes a permanent part of our economic scheme (which is certainly to be desired) there is bound to be a large field for useful interstate action still open. One can imagine, for instance, great good coming out of an interstate program which will seek to unify workmen's compensation measures.

*How large a factor our more liberal labor legislation was in the decline of the industry in Massachusetts will probably never be known as the shrinkage here was due to a complex of causes.

**The proposal for a compact on uniform labor laws was very persuasively advanced by Professor Felix Frankfurter in an address to the Conference.

Suspension of the Six O'Clock Law

The statute which prevents the employment of women in textile mills after 6 p.m. has been a source of bitter contention in Massachusetts ever since it was adopted in 1907. Efforts by the textile employers and the Associated Industries to overthrow the statute by legislative action have been continual but without result. However, with the coming of the cotton textile code a new aspect appeared to be given to this perennial problem. It was argued that since we were assured, during the life of the Recovery Act, substantially uniform and, on the whole, decidedly liberal national labor standards in the textile industries, Massachusetts could now afford to relax the severity of its 6 o'clock prohibition in order that the mills in this state might take full competitive advantage of the opportunities for revival of the cotton and other textile industries which the codes appeared to offer. The executive committee of the State Branch of the American Federation of Labor favored such a course, as did the Governor and the Commissioner of Labor and Industries. Against the opposition of some representatives of organized labor, as well as other interests, legislation was finally passed which permitted, for the life of the N.I.R.A., the Commissioner of Labor and Industries to allow suspension of the 6 o'clock law in the textile industry (and the leather goods industry) under such regulations as he might impose. The regulations issued for the various branches of the textile industry appear in an appendix to this report. Each was decided upon after consulting, at a joint meeting, the views of employers and representatives of organized labor in the industry.

A questionnaire addressed to concerns in the cotton textile industry showed that not only were the regulations for that industry being observed but that a smaller proportion of women was being employed at night than was allowed. In the fifty-four establishments which operated night shifts during the week ending September 30, 1933, the total number of persons employed on such shifts was 12,426, of whom 3,149 or 25.3 per cent were women.

No regulations have to date been issued for the leather industry because there has been no indication of an intention on the part of employers to employ women after 6 o'clock at night in this industry.

Division of Industrial Safety Changes

A number of administrative changes have been incorporated in the work of the Division of Industrial Safety which it is believed will add to the efficiency of the Department's efforts. These are referred to in the report of the Director of that Division. The principal changes were: extension of the "block" system of inspection, inauguration of systematic evening inspections, adoption of a central history card, on which all the important facts of the Department's contact with each establishment in the state will be noted. The device of the central history card was borrowed from the Labor Department of the State of New York.

Public Works, Minimum Wage, Employment Offices

Despite the short daily hours prescribed by most codes and in the President's Reemployment Agreement, it is surprising to note in how many instances evening inspections revealed the employment of women at daily hours in excess of the nine allowed by state law.

Because public works were undertaken largely during the past year by means of federal funds and under federal supervision of labor conditions, the Department's responsibility for law observance in this field has temporarily undergone a considerable shrinkage. Nevertheless, systematic inspection has been kept up and co-operation extended to other agencies charged with supervising these public works.

The report of the Minimum Wage Commission indicates somewhat greater compliance with wage decrees due to the advent of the Codes and better times. Nevertheless, the need for a mandatory minimum wage law, if this work is to become effective, was never more apparent.

The activities of the Public Employment Office Division have been greatly expanded due to the passage of the Wagner-Peyser bill by the United States Congress. The changes that have taken place are described in the report of the Division. They betoken a much increased usefulness of the employment offices to employers and employees and a quantitative and qualitative improvement of its work.

Illegal Selling of Newspapers

Two problems which have caused the Department much concern are the illegal employment of children in public performances, as newsboys, and in other street trades. In connection with the problem of exhibiting children at vaudeville performances a special letter calling attention to the provisions of the law was sent over the Commissioner's signature to the mayors and selectmen of the cities and towns and also the managers of local theatres.

The summer produced a veritable epidemic of small children illegally engaged in selling lemons on the Boston streets. Some attention was given to this problem but the inspectors experienced difficulty in tracing the source of supply, the Department's desire being to prosecute not the children but the agency which sold them the fruit.

A more serious because more extended problem concerned with illegal child labor is that presented by the newsboys, particularly in connection with the sale of a Boston tabloid newspaper which appears in the evening and is sold widely in Greater Boston and surrounding cities. Investigation by the Massachusetts Child Labor Committee, the police of Boston and the inspectors of this Department showed flagrant violations of the law taking place in connection with the sale of this paper. Children without badges and less than 12 years of age were in many instances found selling copies of this paper in the street late in the evening. Sale by agents of the newspapers to children obviously under age and without badges was frequently observed by our inspectors. The co-operation of the publishers of the paper was sought in suppressing this practice and promises of reform were made. Some evidence of improvement have been noted but the evil has been allowed to flourish so long that the cure appears proportionately delayed. Consultations with school authorities have disclosed the deleterious effects on the health, and also on their standing in their school subjects, of young children whose evening hours are spent in selling newspapers in the streets.

Newspaper selling has long been accepted by social workers as a breeding ground for begging and other practices which may lead to delinquency. In addition to these evils the pay received by the children is pitifully small.

The entrance into the newspaper field of tabloids issued in the evening and sold on the streets at late hours to patrons of theatres, athletic exhibitions, etc., has greatly intensified one of the most serious child labor problems which confronts labor law administrators. There are many ways in which a newspaper can under Massachusetts statutes disclaim legal responsibility for sales to children, notably by restricting original sale of the papers to older boys who in turn sell to the younger. The actual sale to a child under age is difficult to witness because the presence of a stranger at the newspaper office or delivery point is quickly observed and procedure adjusted accordingly. Perhaps public conscience may be aroused to the point of causing the newspaper publishers to take more drastic preventive measures to bring their practice into conformity with both the letter and the spirit of the law. Perhaps the newspaper code will prove helpful. Certainly as things now stand the custom of selling papers at night by children under twelve is a disgrace to Boston and nearby cities and a menace to growing youth.

Children on Tobacco Plantations

The problem of child labor in the tobacco fields appears to be definitely on the mend, if not solved. The last annual report mentioned the voluntary agreement entered into by the Connecticut and Massachusetts growers with the labor departments of their respective states not to employ children under fourteen. This summer a visit to the fields was undertaken by the Commissioners of the two labor departments, members of their staffs, Miss Margaret Wiesman, executive secretary of the Consumer's League of Massachusetts, and Captain Dwight Hughes, Jr., in charge of the C.C.C. camp at Hartland, Ct., who was kindly permitted by the Commanding Officer of the First Corps Area, Army Base No. 1, Boston, to accompany the investigators, particularly for the purpose of advising with us on sanitary conditions. Neither in Massachusetts nor Connecticut was there evidence of employment of children under fourteen. The provisions for toilet accommodations near the sheds were much better than on the occasion of our visit the previous year. Atrocious conditions were found in some of the plantation "boarding houses."

However, this is a Connecticut rather than a Massachusetts problem, as there are no more boarding houses for tobacco workers maintained in Massachusetts. The Connecticut growers promised to remedy the living conditions brought to their attention.

Investigations undertaken last year by the Assistant Commissioner, Miss Mary E. Meehan, showed illegal child labor and filthy living conditions on a number of Cape Cod cranberry bogs. Meetings with the growers led to the laying out of a specific program for doing away with these evils. Visits by inspectors of the department this year showed decided improvement but in two cases cranberry growers were brought into court for violation of law.

A considerable portion of the Commissioner's time was given to serving on the Special Industrial Disease Commission of which he was chairman and which reported to this year's legislature. The Commissioner also served on the Commission on Interstate Compacts. He appointed John P. Meade, Director of the Division of Industrial Safety, to serve as his representative on the Special Commission on the Advisability of Licensing Contractors and Builders, and Mr. Lester E. Archibald of the Division of Statistics to serve as his representative on the Special Commission to Investigate relative to State Assistance to Veterans in acquiring Farms and Homes.

The Commissioner was named by the President as one of the four official United States' observers to attend the International Labour Conference in Geneva in June of 1933.

The Department was asked by the U. S. Department of Labor to undertake the issuing of certificates permitting the employment of handicapped workers, under certain limitations, at less than the minimum wages prescribed by the President's Reemployment Agreement. To assist him in this work the Commissioner appointed an advisory committee consisting of the following persons: Mr. Francis Clark, Vice-President, Plymouth Cordage Company; Mr. Herman Koster, Business Agent, Firemen & Oilers Union; Mr. Robert O. Small, Director, Division of Vocational Education of the State Department of Education; Mr. Herbert A. Dallas, in charge of the rehabilitation work of the Department of Education; Dr. Raymond A. Kinmonth, Assistant to the Commissioner, Massachusetts Department of Mental Diseases; Mr. M. Joseph McCartin, Director, State Public Employment Service; Mr. Fred J. Graham, Supervisor of Rehabilitation Activities, State Employment Service. Later the authority for granting these certificates was extended to cover many codes. Responsibility for the carrying on of this work has been delegated to the Assistant Commissioner.

Edwin S. Smith,
Commissioner of Labor and Industries.

FINANCIAL STATEMENT FOR 1933

Income

Division of Standards

Collected in fees and paid into the treasury of the commonwealth	$68,021.06
Collected in fees and paid into treasuries of the cities, towns and counties of the commonwealth	37,922.00
Penalties for violations of hawkers and pedlars laws	356.00
	$106,299.06

Expenditures

Account	Appropriations	Expenditures	Unexpended Balance
Administration			
Commissioner and associates	$18,884.00	$18,883.33	$.67
Clerical assistance to commissioner	6,820.00	6,819.97	.03
Division of Industrial Safety			
Personal services and expenses	153,389.89	152,695.46	694.43
Division of Statistics			
Personal services and expenses	58,773.64	58,758.50	15.14
Division of Public Employment Offices			
Personal services	55,125.00	55,103.32	21.68
Expenses	13,142.00	12,948.95	193.05
Board of Conciliation and Arbitration			
Personal services	19,580.00	15,604.50	3,975.50
Expenses	3,647.97	2,026.87	1,621.10
Division of Minimum Wage			
Personal services	14,420.00	13,786.88	633.12
Expenses	5,238.01	3,516.23	1,721.78
Wage boards	2,500.00	–	2,500.00
Division of Standards			
Personal services	29,385.00	29,385.00	–
Expenses	17,068.08	8,715.23	8,352.85
*Massachusetts Industrial and Development Commission**			
Personal services	4,850.00	4,750.97	99.03
Expenses	2,331.44	1,921.56	409.88
Division on the Necessaries of Life			
Personal services	11,920.00	11,870.00	50.00
Expenses	1,976.56	1,623.98	352.58
Totals	$419,051.59	$398,410.75	$20,640.84
Recapitulation			
Officials	$18,884.00	$18,883.33	$.67
Personal services and expenses	397,667.59	379,527.42	18,140.17
Wage boards	2,500.00	–	2,500.00
Totals	$419,051.59	$398,410.75	$20,640.84

*Commission abolished May 31, 1933.

REPORT OF THE DIVISION OF INDUSTRIAL SAFETY

JOHN P. MEADE, *Director*

INSPECTION WORK

During the year the task of dividing the inspectors' districts into "blocks" which was begun a few years ago was completed for the entire State. Under the block system of inspection, which has now been fully put into effect, each inspector goes from one business establishment to the next in each "block" in his district until the area has been entirely covered. He does not leave his block except when directed to investigate a complaint or an accident which has occurred in some other section of his district. "Block" inspection insures systematic inspection of all work places in each district as required by statute.

Regular evening and Sunday inspection were instituted for the principal purpose of uncovering instances of employment of women and minors beyond the legally allowed daily or weekly hours. These inspections have resulted in the reporting of numerous violations of labor laws. The inspectors are given time off for this extra work, which is undertaken in addition to their regular tours of duty.

During the year the districts of all inspectors were shifted in order to give them the added training and interest which comes from working in new fields. These shifts were accomplished within limited areas so that the inspectors were not obliged to move into new homes.

SUMMARY OF ACTIVITIES

There was a total of 40,299 inspections and 8,948 reinspections made. The following table summarizes the activities of the inspection force for the year ending November 30, 1933:

Inspections

Mercantile	21,810	Road operations	755
Mechanical	10,572		40,299
Manufacturing	2,114	Reinspections	8,948
Building operations	3,291		
Painting	1,757	Inspections and reinspections	49,247

Visits

Complaints	4,412	Homework	170
Accidents	1,391	Total Visits	6,463
Occupational diseases	490		

Total inspections and visits . 55,710

Complaints Received

Women and Minors		*Public Works*	
Overtime	726	Overtime employment	6
Minors		Citizens' preference	41
Employed under 14 years	14	Veterans' preference	50
Employed without certificate	30	Laborers' vacation	3
Employed in prohibited trades and on dangerous machinery	3	Prevailing rate of wages	5
Illegal exhibition of children	8		85
	55	*Illegal Advertising*	10
		Labor General	
Time Notices		One day's rest in seven	87
Not posted	16	Holiday employment	2
Improperly posted	1	Fines	6
Time other than stated	7	Homework	5
	24	Lunch period	2
			102

Unguarded machinery	5
Health and Sanitation	
Toilet and washing facilities	93
Locked doors	5
Lighting	5
Ventilation	41
Medical kit	5
Seats	6
Drinking water	11
	166

Building Operations	57
Complaints	1,230
Non-payment of wage complaints	2,225
Total complaints	3,455
Homework licenses granted	259
Painters' registrations	393

Orders Issued

Labor: Employment of women and minors, 82; posting time notices, 3,455; minors employed in prohibited trades or on dangerous machinery, 7; public exhibition of children, 1; procuring and returning certificates, 2,697; one day's rest in seven, 429. Total, 6,671.

Health: Ventilation, humidity, dust removal, drinking water and core rooms, 354; lighting and injury to eyes, 268; toilet and washing facilities, 1,920; meal hours, seats for women, lockers, 73; common drinking cup and towel, 120; first aid rooms and medical chest, 840; casters on boxes 75 pounds and over, 1. Total, 3,576.

Safety: Communication with engine room, 20; safeguarding machinery, 1,959; free egress, 137; unguarded openings, 31; shuttle guards, 8. Total, 2,155.

Miscellaneous: Tickets to weavers, 1; weavers' specifications, 3; homework lists, 9; apprentice without pay, 1; deduction for tardiness, 1. Total, 15.

Building Operations: 587; painting operations, 517.

Public Works: Citizens' preference, 71; 8-hour day, 48-hour week, 7; prevailing rate of wages, 2; weekly payment of wages, 3.

Totals: Orders issued, 13,604; orders complied, 13,541, which included 5,684 verbal orders which were complied at time of issuance; 28 orders were cancelled on account of firms going out of business. Orders outstanding December 1, 1933, numbered 1,191.

Hours of Labor for Women

Inspections were made in 34,496 manufacturing, mechanical and mercantile establishments. Telegraph offices and telephone exchanges, express and transportation companies, motion picture theatres, manicuring and hairdressing establishments, and office buildings in which women elevator operators were employed were also inspected. When necessary, instructions were given to responsible persons in the establishment visited regarding the posting and proper making out of time notices for female employees.

Enforcement of the statutes restricting the period of employment for women and minors during the evening hours was accomplished largely by night inspection of industrial establishments, particularly in districts where manufacturing concerns employed such persons in shifts during this peak season. Evening shifts employing women are general in dressmaking and garment shops, in shoe factories, bakeries, and in the manufacture of candy, fur, jewelry. Restaurants and lunch rooms where women are employed at night were given close attention. Under the statutes women may work in these places at any hour of the night or any day of the week if above twenty-one years of age, although subject to the restriction of not more than nine hours' work in one day nor more than forty-eight hours in a week. Possible illegal employment of women in hotels at night is difficult to detect because of the numerous shifts used. Investigations were often made on occasions when large numbers of persons were congregated at hotels and violations were therefore more likely to occur.

Special inspection of seashore establishments was as usual carried on during the summer. Parks and amusement places in various parts of the State were visited at this season. Special visits were made to these places on holidays and Sundays and during the evening hours to detect overtime employment of women or children. Because of the frequent labor turnover, constant oversight of such places is necessary.

The part of the general public in the enforcement of the statutes restricting the hours of labor for women and minors is shown by the 726 complaints coming to the Department from this source. Evidence was found which definitely substantiated one hundred and eighty-five of these complaints.

One of the difficulties encountered by the Department in manufacturing establishments where piece rates prevail is the tendency for women to work at times other than stated on the time notice. Piece workers are irregular as to their times of coming to work and leaving work. Inspectors made frequent visits to such plants and checked up regularly the employment of women with special reference to observance of the working hours as posted.

Child Labor

Constant attention is necessary to see that children are not employed in proximity to dangerous machinery.

Two hundred and forty-six orders were issued requiring the employer to obtain employment certificates for children. In determining whether children were lawfully employed, their alleged hours of attendance at continuation school were verified in many cases. Special attention was given to establishments where children were given causal employment, such as private bowling alleys, roadside stands, theatres, dance halls and chain stores. The co-operation of school superintendents, attendance officers and public officials in the enforcement of statutes protecting employed children was continued during the year. Violations of the child labor law were quite frequently found at amusement parks and beach resorts, notably the practice of permitting children under sixteen years of age to work after six o'clock in the evening.

The usual practice of checking up on the employment of children by milk drivers in the early hours of the morning was carried on in the urban districts of the State. Much assistance was received from police officers in this connection and through the medium of such co-operation a great deal was accomplished in preventing one of the most harmful types of child labor.

The unlawful appearance of children in theatrical and dancing exhibitions received much attention from this Division. A special letter was sent by the Commissioner to all proprietors of motion picture theatres where vaudeville entertainments take place, calling their attention to the provisions of the statutes regarding the employment of children on the stage.

Providing Seats for Women and Children

Sixty-two orders were issued requiring that seats be provided for women and minors.

Industrial Safety

During the year 1,959 orders were issued by the Department for the safeguarding of machinery. These included bringing power transmission machinery parts into conformity with the requirements of the safety rules and regulations and machinery standards of the Department, as well as the safeguarding of hazardous machinery at the point of operation. Many orders were issued in connection with machinery where interlocking devices are used, and in connection with metal-grinding machinery; safeguarding of saws, jointers and planers in wood-working establishments; stamping and punch press machinery and shears for cutting steel in the metal trades. The guarding of machinery was stressed in shoe factories, tanneries, textile mills (woolen, cotton and rayon), foundries, wood-working establishments, slaughter and meatpacking establishments, factories making electrical machinery apparatus and supplies, motor vehicles, jewelry and soap. Although allowance must be made for decreased exposure hours in 1932, comparison made with accidents of this type in 1919 leads to the conclusion that the large falling off is due in considerable measure to the regular inspection of establishments where machinery is used. This is clearly indicated in the following table taken from official records:

Machinery Accidents by Manner of Occurrence

	1919	*1932*
Starting, stopping or operating machinery	9,675	2,368
Adjusting machine, tool or work	1,758	300

Machinery Accidents by Manner of Occurrence — Continued

	1919	1932
Hit by flying objects	3,285	418
Cleaning or oiling machines	1,298	270
Breaking of machine, tool or work	620	175
Repairing machine	223	79
All other	1,631	1,275
	18,490	4,885

In 1919 out of a total of 67,240 tabulatable accidents, 1,750, or 2.6%, included permanent partial disability injuries. In 1932 there were 42,067 tabulatable injuries, of which 864, or 2.0%, resulted in permanent partial disability. These accidents included loss of fingers, thumbs, hands, toes, feet, limbs and the sight of eyes. Comparative tables of such accidents, which usually result in loss of wage-earning capacity, follow:

Specific Injuries	1919 Number of Cases	Per cent of Total
One finger or thumb lost at or above first joint	1,109	73.1
Two fingers on one hand	171	11.2
One eye	115	7.6
One hand	60	3.9
One toe	25	1.6
One foot	15	1.0
Two toes	12	.8
Both feet	2	.1
One hand and one finger	2	.1
One hand and one foot	1	.1
Both eyes	1	.1
One finger on one hand, and one on the other	1	.1
One finger on one hand, and two on the other	1	.1
Two arms and two legs	1	.1
One hand and one toe	1	.1
	1,517	100.0

Types of Injuries	1932 Number of Cases	Per cent of Total
One or more fingers, one phalange	516	66.7
One eye	68	8.8
Two or more fingers, two or more phalanges	50	6.5
Right or major index finger, two or more phalanges	36	4.8
Right or major thumb, one phalange	23	3.0
One toe	12	1.5
Right or major thumb, two or more phalanges	12	1.5
One foot or leg	11	1.4
Left or minor hand or arm	10	1.3
Two or more toes	6	.8
Right or major hand or arm	6	.8
Right or major index finger, at second joint, and one or more fingers	6	.8
Right or major thumb at first joint and right or major index at second	4	.5
Right or major thumb and index finger, two or more phalanges	3	.4
Right or major thumb at first joint and one or more fingers	3	.4
Two or more fingers or thumbs on both hands	2	.2
Right or major thumb at second joint and one or more fingers	2	.2
One hand or arm and one finger or thumb	1	.1
Both feet or legs	1	.1
Both hands or arms	1	.1
Totals	773	100.0

Building Operations

During the year 579 orders were complied with for safeguarding employment on buildings. The safety protection thus afforded included the equipping of working platforms with toeboards and guard rails, the installation of safety devices in connection with the use of electricity of dangerous voltages, protection to employees working below stagings or around floor openings, regulations to control smoke and fumes where artificial light was used, piping of salamanders in order to exhaust smoke and fumes to the outside air. Stagings used in the painting of buildings were examined regularly. Safety provisions included tielines secured to a stable part of the building or structure when the staging was attached to or supported by the gutters, and life lines and belts for men employed fifty feet or more above the ground, the prevention of overcrowding of stagings and the proper spacing of falls. Because of the falling off in the erection of new buildings, the number of orders issued does not equal those in former years. Much of the work of the building inspectors is concentrated now on repairs and alterations to existing buildings.

The building trades industry contributed 4,911 cases, or 11.7% of all industrial accidents for the year ending June 30, 1932: 15 of these cases were fatal, or 6.8% of all fatal cases. There were 67 permanent partial disability injuries, or 7.8% of

all cases of this type. There were two cases of total disability, or 28.5% of all such cases. During the year ending November 30, 1933, 116 accidents in the building trades were investigated, including 27 fatal accidents. The following table summarizes these accidents:

Type of Employment

Painting	42
Road building	30
Building construction	21
Roofing	10
Alteration and repair	12
Building wrecking	1
Total	116

Nature of Injury		*Causation*	
Fractures and breaks	55	Loss of balance	30
Bruises and contusions	25	Collapse of staging	26
Internal injuries	17	Trench cave-in	11
Amputations	5	Slipping of ladders	9
Lacerations	5	Broken ladders	9
Sprains and strains	4	Struck by falling objects	8
Infections from cuts	2	Broken gutters	3
Crushed to death	1	Faulty scaffolds	3
Burns	1	Falls through openings	2
Electrocution	1	All other	15
Total	116	Total	116

General Accidents

There were 805 accidents investigated by inspectors outside the building trades — 717 males and 88 females were included; 65 of these accidents were fatal; 60 of the total occurred to minors under eighteen years of age. Following are tables of the industrial accidents investigated during the year ending November 30, 1933, by industry, age and sex:

Industrial Accidents Investigated During Year Ending November 30, 1933, by Industry, Age and Sex:

Type of Employment	Total	M.	F.	−14 M.	−14 F.	15–17 M.	15–17 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61– M.	61– F.	Fatal M.	Fatal F.
Textiles	148	133	15	–	–	6	1	9	1	32	6	31	3	22	2	21	2	12	–	2	–
Shoes and shoe findings	69	49	20	–	–	9	4	8	4	11	7	10	4	3	1	4	–	4	–	1	1
Foundries	64	61	3	–	–	–	–	3	3	14	–	19	–	9	–	12	–	4	–	2	–
Paper and paper products	64	56	8	–	–	–	–	5	2	17	4	17	–	11	–	5	2	1	–	4	–
Metal trades	56	46	10	–	–	1	3	2	1	18	6	8	–	13	–	3	–	1	–	4	–
Furniture and wood products	56	54	2	–	–	3	2	2	–	13	–	11	–	16	–	8	–	1	–	5	–
Food products	54	49	5	–	–	1	2	5	1	6	1	16	–	12	–	5	1	4	–	5	–
Tanneries	34	32	2	–	–	2	–	3	1	9	–	12	1	3	–	3	–	–	–	–	–
Printing and publishing	30	30	–	1	–	3	–	4	–	10	–	4	–	4	–	1	–	3	–	1	–
Electrical	27	26	1	–	–	–	1	2	–	8	–	6	–	8	–	2	–	–	–	6	–
Mercantile	27	24	3	–	–	6	–	2	1	5	–	4	2	5	–	1	–	1	–	7	1
Rubber goods	23	18	5	–	–	–	1	1	–	7	2	4	2	6	–	–	–	–	–	1	–
Fuel	15	15	–	–	–	–	–	1	–	3	–	5	–	3	–	2	–	1	–	4	–
Jewelry and clocks	14	14	–	–	–	–	–	3	–	2	–	3	–	2	–	3	–	1	–	–	–
Toys and games	14	13	1	–	–	2	–	4	1	5	–	1	–	1	–	–	–	–	–	1	–
Clothing	13	6	7	–	–	1	4	2	1	–	1	1	1	1	–	1	–	–	–	–	–
Public utilities	11	11	–	–	–	–	–	–	–	2	–	3	–	2	–	2	–	2	–	6	–
Chemicals	9	9	–	–	–	–	–	–	–	3	–	2	–	1	–	2	–	1	–	–	–
Auto parts	5	5	–	–	–	–	–	2	–	1	–	1	–	–	–	1	–	–	–	–	–
Radios and parts	5	5	–	–	–	–	–	1	–	1	–	2	–	1	–	–	–	–	–	1	–
Laundries	5	5	–	–	–	–	–	–	–	1	–	2	–	1	–	–	–	1	–	–	–
Optical goods	5	5	–	–	–	1	–	1	–	1	–	1	–	1	–	–	–	–	–	–	–
Boat building	4	4	–	–	–	–	–	–	–	–	–	–	–	1	–	3	–	–	–	–	–
Pyroxylin	4	4	–	–	–	–	–	1	–	–	–	1	–	–	–	2	–	–	–	1	1
Miscellaneous	49	43	6	–	–	2	3	3	–	14	2	7	–	8	–	6	–	3	–	11	–
Totals	805	717	88	1	–	37	21	64	16	183	29	171	14	134	3	87	5	40	–	63	2

Industrial Accidents Investigated During Year Ending November 30, 1933, by Industry, Age and Sex — Continued

Nature of Injury	Total	Non-Fatal	Fatal
Abrasions, bruises and contusions	243	236	7
Amputations	243	242	1
Cuts, punctures and lacerations	136	134	2
Fractures and breaks	92	77	15
Burns and scalds	34	26	8
Sprains and strains	14	14	–
Electric shock and electrocution	10	1	9
Infection from cuts	10	7	3
Fatal elevator falls	9	–	9
Crushed to death	6	–	6
Internal injuries	6	2	4
Concussion	1	1	–
Suffocation, by steam	1	–	1
Totals	805	740	65

Employees sustaining these injuries worked at the following occupations:

Textile Mills: Weavers, dyers, warper tenders, back tenders, card tenders, spinners, extractor operator and loom workers, back tenders and winders.

Shoe Factories: Press operators, stitchers, packers, heelers, sole leather cutters, heel shavers and in the fleshing of soles.

Foundries: Erectors, punch press operators, millwrights, machinists, ironworkers, lathe hands and moulders.

Paper Mills: Press feeders, paper creasers, machine operators, helpers on machines, beater helpers and millwrights.

Furniture Factories: Planer operators, machine operators, mill workers, sawyers, gluers, operator of circular saw and cabinet makers.

Food Manufacturing: Machine feeders, bakers, doughmixers, meat cutters and wrappers.

Tanneries: Embossers, skin fleshers, sinkers, seasoners and beamhouse workers.

Printing and Publishing: Pressmen, printers, stereotypers, job press feeders.

Miscellaneous: Laborers, machinists, cutters, trimmers, chemists, machinists, engineers, linemen, carpenters and assemblers.

Contact with machinery caused 718 of the 805 accidents. In plants where accidents occurred, 609 had machinery that was safeguarded; 50 had safety committees. Medical kits were provided in 286 establishments; 459 firms maintained first aid rooms, and of this number 146 had full-time nurses or attendants, and 184 had visiting physicians or doctors on call.

Eye Injuries

There were 65 eye injuries to 64 men and one woman investigated during the year. A tabular summary of such accidents follows:

Type of Employment	
Machinery and parts	15
Textiles	13
Tap and die manufacturing	6
Metal trades	5
Construction	4
Automobiles and parts	4
Electrical manufacturing	3
Shoe manufacturing	2
Gas manufacturing	2
Optical goods	2
Fertilizer manufacturing	2
Paper manufacturing	2
Miscellaneous	5
Total	65

Eye Injuries — Continued

Nature of Injury	
Foreign bodies	28
Irritation	14
Cuts, punctures and lacerations	10
Bruises	4
Burns	4
Loss of sight	3
Loss of eye	2
Total	65

These eye injuries were caused by emery, steel and wood chips that break off from grinding wheels, saws and machines; spatterings from acids and caustic solutions, and the glare from welding operations. The following are typical cases:

A man was pushing blocks into a kettle of molten iron and some of the iron splashed into his eyes.

While grinding a piece of metal a chip entered a man's eye necessitating the removal of his eyeball.

While working near a man who was doing electric welding a man's eyes were affected by the ray from the electric arc.

A man was working near another man who was ladling acetic acid, and some of the acid splashed into his eyes.

While sharpening a tool emery entered a man's eyes.

Non-Machinery Accidents

Falls of persons and stepping on or striking against objects caused more accidents during the year than contact with machinery parts. The handling of objects and tools caused more industrial injuries than either falls or machinery accidents. These facts are well known to the inspectors who continually advise against conditions responsible for the origin of such accidents. Only through concerted effort of employees and management under intelligent direction will non-machinery accidents be reduced. Recommendations by inspectors in this connection include instructions for the careful handling and storing of raw material and preventing the overcrowding of employees in work places. The number of tabulatable injuries arising from non-machinery accidents and the extent of the disability which they caused appears from the following table:

*Total Tabulatable Injuries by Cause of Injury and Extent of Disability**

Cause of Injury	Totals	Deaths	Permanent Total Disabilities	Permanent Partial Disabilities	Temporary Total Disabilities
Handling of objects	12,842	23	1	162	12,656
Falls of persons	7,368	37	1	49	7,281
Machinery	4,885	35	1	474	4,375
Hand tools	3,800	1	1	63	3,735
Vehicles	3,100	49	2	28	3,021
Stepping on or striking against objects	3,076	6	–	16	3,054
Falling objects, not being handled by employee	2,061	9	–	18	2,034
Miscellaneous causes	2,030	15	–	21	1,994
Explosions, electricity, etc.	1,705	32	1	12	1,660
Occupational diseases	954	13	–	20	921
Animals	246	2	–	1	943
Totals	42,067	222	7	854	40,974

*Taken from Table 10 of the Annual Report of the Department of Industrial Accidents for the year ending June 30, 1932.

Injuries to Employed Children

Practically all the serious industrial accidents sustained by children were investigated. These included all fatal and permanently disabling injuries to children aged fourteen to eighteen as reported to the Industrial Accident Department for the year ending June 30, 1932. The certificating requirements of the children were checked up and found to be in compliance with the law with one exception.

Fatal Injuries to Children for the Year 1933

During this period no child under sixteen years of age sustained an accident arising out of and in the course of his employment which resulted fatally. One boy seventeen years of age is listed in the accident experience of the Industrial Accident Department for this year as a fatal case. He was employed for seven months as an attendant nurse in the tuberculosis ward of the Medfield State Hospital, and in the summer of 1931 showed signs of general weakness and pulmonary disorder. He was then removed to the Norfolk County Tuberculosis Sanitarium where the doctor in charge diagnosed the case as tuberculosis directly traceable, in his opinion, to the employee's occupation.

Permanent Partial Disability Injuries to Children Fourteen and Fifteen Years of Age

Three children under sixteen years of age received permanent partial disability injuries. Classified by industries and injury these were as follows:

Industry		*Injury*	
Mercantile	2	Loss of one phalange, one finger	2
Shoe and leather	1	Loss of two phalanges, one finger	1
	3		3

Two of these injuries occurred on meat-grinding machinery in mercantile establishments:

In one case the boy placed his right hand in the throat of the machine in attempting to force out the meat which had lodged there. His second finger on the right hand was caught in the mechanism when it began to operate, resulting in amputation of the second phalange.

In the other case, the boy was cleaning the meat grinder with his fingers of the right hand in the hopper, when he accidentally turned on the switch, starting the grinder. He lost the first digit of the middle finger.

While operating an embossing machine, the third boy sustained an injury to the index finger of the right hand, requiring amputation at the first joint.

One of these children was permitted to work without an employment certificate, and prosecution took place.

Permanent Partial Disability Injuries to Children Sixteen and Seventeen Years of Age

Twelve children sixteen and seventeen years of age, ten boys and two girls, sustained permanent partial disability injuries during the year, as set forth in the following table:

Type of Employment		*Nature of Injury*	
Shoe and leather	3	Loss of all fingers on both hands	1
Textile	2	Loss of use of one hand	1
Bottling	2	Loss of two phalanges, one finger, and one phalange, one finger	1
Paper Box manufacturing	1	Loss of two phalanges, one finger	1
Woodworking	1	Loss of one finger	2
Restaurant	1	Loss of use of one finger	1
Rubber	1	Loss of one phalange, one finger	5
Auto accessory manufacturing	1		
Total	12	Total	12

The causes of these accidents are described below:

A boy seventeen years of age employed in a shoe factory at cutting inner soles, lost all the fingers of both hands when he tried to lift the die out of the block in which it was stuck and accidentally stepped on the treadle, bringing the head of the machine down on both hands.

Another boy attempted to take material out of a press, stepping on the foot treadle before his hand was entirely out of the danger zone. He lost two phlanges on the middle, ring and little fingers.

Employed as helper on a calender, another boy of the same age was cleaning the rolls, when his left hand was crushed as the machine accidentally started up, resulting in the loss of use of his left hand.

In the other cases, two employed as delivery boys sustained amputation of phlanges: One lost his right index finger in cleaning a machine while it was in motion; another had his finger caught in paper box machinery.

Two boys, each sixteen years of age, sustained traumatic amputation through putting their fingers into the hopper of a meat-cutting machine and pressing the meat down on the grinding mechanism. One lost three phalanges, one on the index finger and the others on the third and fourth fingers. In the other case the boy had the ring finger amputated at the first joint.

An apprentice on wood-working machinery was about to saw a small piece of wood when his hand slipped and became caught under the saw, cutting the left index finger so severely that amputation was necessary.

Nearly all of these injuries were preventable. These children were not found to be illegally employed.

Injuries sustained by the two girls, who were seventeen years of age, involved amputation of a phalange in each case. In one, the girl was cleaning her machine in a wool-combing establishment, and in some way the cloth became entangled in the gears. In trying to remove it, her middle right finger was amputated at the first joint.

In the other case, while operating a perforating machine in the cutting room of a shoe factory, the material became caught while trying to straighten it out, and the girl's finger became drawn into the mechanism causing amputation at the first joint.

Free Egress from Factory Buildings

To maintain free egress from factory buildings, regular inspection is necessary. This problem is particularly acute in small establishments located in tenant factory buildings. It was necessary to issue 137 orders because doors were locked, bolted or otherwise fastened in violation of the law. Close attention was given to this problem in establishments where inflammable compounds or explosives were used and processes carried on that might obstruct or render dangerous the egress of operatives in case of fire. In some of these places barrels, boxes, refuse cans and containers were found stored temporarily in front of the exits and were removed by order of the Department.

Processes of industry in which gasoline, benzine, ether, naphtha, turpentine and benzol were used, including establishments engaged in the business of dry cleansing, engraving, rubber compounding and commercial photography, were carefully inspected. The requiring of closed containers and the substitution of less inflammable and non-explosive compounds were urged in some instances as precaution against explosion and fire in factory buildings.

Light in Industrial Establishments

There were 268 orders issued requiring compliance with the provisions of the Lighting Code. These involved protection of employees from glare, proper shading of lamps, better distribution of light, increased intensity of illumination at the work place, and suitable entrance and exit lighting. These orders were generally concerned with the maintenance of existing equipment. The system of lighting in many cases was found defective because of the accumulation of dust and dirt on the lamps. Regular cleaning of the equipment was urged in these instances. In some cases it was found necessary to change the location of the light source in order to remove discomfort and annoyance. Polished surfaces in certain establishments caused eye fatigue and interference with vision. Proper shading of lamps was required in order to deal with this condition. It was found in some cases that shades had been removed and replaced in such a manner as to impair the lighting.

Suitable illumination of exits, passageways, stairways, hallways, elevator cars, wash and toilet rooms and other parts of the plant was ordered in numerous instances. To establish a good distribution of light in the workroom, advice was given with regard to the height and location of lamps and the use of shades and reflectors. Close attention to lighting facilities in basements or mercantile establishments was continued during the year. Prompt compliance with the orders issued was received by the Department.

Ventilation

Industrial processes which generate toxic fumes and gases required the issuance of 354 orders which were promptly complied with. Systems for dust and fume removal in manufacturing and mechanical establishments, and work places in which industrial poisons were used, were given careful inspection. Inspectors were obliged to supervise closely ventilating systems in order to determine their efficiency and to give careful study to duct openings and the shape of hoods. Some equipment was found operating without adequate hood coverage and enclosure at the seat of the dust origin. The removal of dust was found in some cases to be prevented because of the hoods being blocked up with refuse material. Establishments inspected in this connection included shoe factories, foundries, woodworking plants and those manufacturing rubber products, also metal-plating concerns and concerns making rayon and asbestos fabrics. Conditions in plants in which steam and vapor caused uncomfortable conditions in the workroom were rectified. Special attention was given to ventilation in metal-polishing establishments, laundries, hotel kitchens and jewelry factories. Exhaust equipment was improved in places operating emery, grinding, polishing and buffing wheels, and wood-working shops in which lead and arsenic were used in the work process. Foundry operations in which smoke, gases, and silica dust constitute a health hazard were given careful consideration.

There were 840 orders issued by the Department requiring compliance with the first aid provisions of the statutes and the Department's rules and regulations. Failure to furnish basins, hot water, suitable chairs, blankets, and the replenishing of medical chests, was responsible for the issuance of orders. Persons other than a qualified nurse, employed in giving first aid treatment, were required to furnish certification from a doctor that they were competent to do this work.

Injuries resulting from infection continued to be a frequent cause for incapacity and partial disability. In 1932 there was a total of 4,104 injuries of this type: 21 terminated fatally; 37 were permanent partial disabilities. The Department of Industrial Accidents, in its Table 9 for the year ending June 30, 1932 which is presented herewith, indicates its experience with infections resulting from industrial injuries.

Infection by Nature of Injury and Extent of Disability, 1932

Nature of Injury	Totals	Deaths	Permanent Total Disabilities	Permanent Partial Disabilities	Temporary Total Disabilities
Cuts, punctures, lacerations	2,749	11	–	1	2,737
All other	539	1	–	–	538
Abrasions, bruises, contusions	657	5	–	–	652
Burns and scalds	112	–	–	–	112
Amputations, loss of use	36	1	1	34	–
Fractures	10	3	–	2	5
Sprains and strains	1	–	–	–	1
Totals	4,104	21	1	37	4,045

In 1932, the most recent period available for dependable statistics in this connection, it is indicated that 9.7% of the total tabulatable injuries were infection cases.

Industrial Health

The tangible result of the enforcement of the industrial health requirements of the statute was compliance with 3,963 orders issued by the Department. A total of 2,039 orders to provide suitable toilet and washing facilities was issued. These included the requirement to furnish running hot and cold water in establishments where employees were exposed to contact with poisonous substances or liquids.

Special attention was given by inspectors to plants where industrial poisons were used, such as those engaged in the manufacture of textile fabrics, refrigerators, storage batteries, brake linings, rubber products, shoes and findings, including wood heels, naphtha cement and dyeing and cleansing establishments. Means required to protect the health of employees and to prevent the inhalation of dust, fumes and gases included mechanical exhaust at the point of origin, the use of suitable containers, respirators, rubber gloves and masks, and other devices. Co-operation was received from physicians, hospitals and clinics in reporting patients suffering from diseases of occupation. The information received in this connection was filed each month with the Department of Public Health as required by Section 11, Chapter 149 of the General Laws, Ter. Ed.

Occupational Diseases

During the year 352 cases of industrial disease were investigated. These included 298 men and 54 women, 20 of which cases were fatal. In each instance the work place was investigated, and, when necessary, recommendations were made for the control of the danger. Co-operation was generally received under these conditions. By disease, age and sex the industrial diseases investigated are classified as follows:

Cases of Industrial Illness Investigated During the Year Ending November 30, 1933, by Disease, Age and Sex

Illness	Total Cases	15–18 M.	15–18 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61+ M.	61+ F.	Total M.	Total F.	Fatal M.	Fatal F.
Dermatitis	249	2	4	13	11	58	24	54	7	41	5	20	–	10	–	198	51	–	–
Gas and fume posioning	34	–	1	–	–	8	–	12	–	7	–	3	–	3	–	33	1	2	–
Lead posioning	20	–	–	–	1	3	–	7	–	4	–	4	–	1	–	19	1	–	–
Pneumoconiosis	25	–	–	–	–	3	–	2	–	5	–	14	–	1	–	25	–	10	–
Silicosis	8	–	–	–	–	2	–	1	–	3	–	1	–	1	–	8	–	4	–
Asbestosis	3	–	–	–	–	–	–	2	–	1	–	–	–	–	–	3	–	2	–
Anthrax	8	–	–	–	–	2	1	3	–	2	–	–	–	–	–	7	1	1	–
Benzol poisoning	2	–	–	–	–	1	–	1	–	–	–	–	–	–	–	2	–	1	–
Compressed air illness	2	–	–	–	–	1	–	–	–	1	–	–	–	–	–	2	–	–	–
Brass posioning	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–
Totals	352	2	5	13	12	78	25	82	7	65	5	42	–	16	–	298	54	20	–

Employees covered by the above table worked at the following occupations:

Textile Mills: Skein winders; washer tenders; weavers; helpers on printing machines and at dye kettles; wool scourers and can boys.
Shoemaking: Shoedressers; cementers; heel coverers; treers and ironers.
Tanneries: Beamhouse workers; tanners; finishers; sprayers and wet wheelers.
Rubber Factories: Lasters; calender operators; trimmers and finishers.
Metal Trades: Solderer; dyesetter; packer and machine operator.

The origin of these diseases was traced to the following sources:

Tanneries: Chrome solution and dyes.
Shoemaking: The use of shellac, wood alcohol, ammonia and dyes.
Textile Mills: In handling of dyed materials and oily rags; cleaning color cans.
Rubber Factories: Naphtha, gasoline and varnish.
Metal Trades: Acid and alkali solutions and oils.

To prevent recurrence of similar diseases of occupation, improvement was made in the exhaust system in many cases. Better ventilation was provided in workrooms and suitable washing facilities made available. The installation of shower baths and provision for lockers, medical chests, first aid rooms, respirators, goggles, masks, wooden shoes, rubber aprons, rubber gloves, oil skin sleeves, canvas shoes and aprons, and suitable places for eating food were among the means adopted to prevent recurrence of disease.

Dermatitis

There were 249 cases of dermatitis investigated, affecting 198 men and 51 women. The following table gives these cases by industry, age and sex:

Dermatitis Cases Investigated During the Year Ending November 30, 1933, by Industry, Age and Sex

Industry	Total Cases	15–17 M.	15–17 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61+ M.	61+ F.	Total M.	Total F.
Textile	51	–	–	4	–	14	1	12	1	9	–	8	–	2	–	49	2
Shoe manufacturing	49	2	2	–	3	11	7	11	1	7	1	4	–	–	–	35	14
Tanners	47	–	1	3	1	12	2	12	2	11	–	3	–	–	–	41	6
Rubber goods	14	–	1	1	1	–	2	3	2	2	2	–	–	–	–	6	8
Machinery and parts	13	–	–	–	1	2	4	2	1	1	–	–	–	2	–	7	6
Food	9	–	–	1	1	2	1	2	–	1	1	–	–	–	–	6	3
Electrical specialties	6	–	–	–	1	–	2	–	–	2	1	–	–	–	–	2	4
Gas and oil	6	–	–	1	–	4	–	1	–	–	–	–	–	–	–	6	–
Metal trades	6	–	–	–	1	–	–	2	–	–	–	1	–	2	–	5	1
Hardware	5	–	–	–	–	1	1	–	–	1	–	1	–	1	–	4	1
Paper and paper products	5	–	–	–	–	1	–	3	–	–	–	–	–	1	–	5	–
Chemical manufacturing	4	–	–	–	–	2	–	2	–	–	–	–	–	–	–	4	–
Cleansing and dyeing	4	–	–	2	–	1	1	–	–	–	–	–	–	–	–	3	1
Foundry	4	–	–	–	–	–	1	1	–	2	–	–	–	–	–	3	1
Printing and publishing	4	–	–	–	1	–	–	1	–	1	–	1	–	–	–	3	1
Sporting goods and games	4	–	–	–	–	2	–	1	–	1	–	–	–	–	–	4	–
Leather Products	3	–	–	–	–	1	1	–	–	1	–	–	–	–	–	2	1
All other	15	–	–	1	1	5	1	1	–	2	–	2	–	2	–	13	2
Total	249	2	4	13	11	58	24	54	7	41	5	20	–	10	–	198	51

Employees suffering from this illness were employed at the following operations:

Textiles: Washer tender; weaver; color boy; dye bath tender; kettle hand; wet finisher; spinner and printer.

Shoe manufacturing: Treer; ironer; stitcher; cementer; laster and shoe dressing.

Tanneries: Seasoner; enameler; tan room helper; wet-wheeler; lumper; glazer; beam house worker.

Rubber products: Calender operator; weighing, cutting and trimming rubber.

Machinery: Solderer; welder; assembler and grinder.

Establishments manufacturing or serving food: Baker; dishwasher and chocolate dipper.

Miscellaneous: Paster; punch press operator; painter; polisher; driller and plater; lithographer; moulder and mechanic.

The causation of disease was traced to the following conditions:

Textiles: Contact with dyes, caustic solutions, oils, alkali and acid solutions.

Shoe manufacturing: Handling shoe dressings, inks and cleansers.

Tanneries: Handling wet chromed leather and also seasoning solutions.

In other industries causative agents included oils, acid and alkali solutions, lacquer, turpentine and colored inks. Employees in places were advised to wash hands and forearms frequently with a mild soap and water where irritating substances were used. Where ammonia, naphtha and gasoline were used in the course of employment, employees were advised to wash their hands carefully and apply olive oil or cold cream at the end of the day.

Gas and Fume Poisoning

There were 34 cases of gas and fume poisoning investigated, involving 33 men and one woman. Of these, two were fatal. The following table summarizes these cases by age, sex and industry:

Gas and Fume Poisoning Cases Investigated During the Year Ending November 30, 1933, by Industry, Age and Sex

Industry	Total Cases	16–18 M.	16–18 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61+ M.	61+ F.	Total M.	Total F.
Textile	6	–	–	–	–	1	–	3	–	–	–	–	–	2	–	–	–
Pyroxylin products	5	–	1	–	–	–	–	1	–	2	–	1	–	–	–	–	–
Auto sales and service	5	–	–	–	–	3	–	2	–	–	–	–	–	–	–	–	–
Metal plating	3	–	–	–	–	–	–	2	–	–	–	1	–	–	–	–	–
Lime manufacturing	2	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–
Musical instruments	2	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Leather manufacturing	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–
All other	9	–	–	–	–	3	–	2	–	2	–	1	–	1	–	2	–
Totals	34	–	1	–	–	8	–	12	–	7	–	3	–	3	–	2	–

Lead Poisoning

There were 20 cases of lead poisoning investigated, involving 19 men and one woman. None of these was fatal. The young woman affected by this disease handled enameled articles after they were taken from the ovens. Seven men were employed using paint. They were either painters or mixers of paint. Other men handled red lead and lead bushings or repaired old storage batteries. The following table summarizes these cases by industry, sex and age:

Lead Poisoning Cases Investigated During the Year Ending November 30, 1933, by Industry, Age and Sex

Industry	Total Cases	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61+ M.	61+ F.	Total M.	Total F.
Painting	7	–	–	2	–	2	–	1	–	1	–	1	–	7	–
Smelting metals	3	–	–	–	–	–	–	1	–	2	–	–	–	3	–
Battery manufacturing	3	–	–	1	–	2	–	–	–	–	–	–	–	3	–
Foundry	2	–	1	–	–	1	–	–	–	–	–	–	–	1	1
Machinery and parts	2	–	–	–	–	1	–	1	–	–	–	–	–	2	–
All others	3	–	–	–	–	1	–	1	–	1	–	–	–	3	–
Totals	20	-	1	3	–	7	–	4	–	4	–	1	–	19	1

Pneumoconiosis

There were 25 cases of pneumoconiosis investigated during the year, of which 10 were fatal. Fourteen occurred in the granite trade and 7 resulted in death. The victims of this disease ranged in ages from fifty to sixty years and all were employed in granite cutting. Respirators were available for the use of these employees, but in many instances they were not used. All were exposed to the inhalation of granite dust. Two men were employed in foundries as sandblasters. Both of them worked in rooms apart from other workmen. They were equipped with air-flow helmets. Investigation showed that there was, neverthelsss, grave exposure to the inhalation of silica sand. Both died from this disease.

Inhaling dust from the use of dry rosin in the paper industry was found to be the cause of death to another employee.

In the 15 non-fatal cases, men were exposed to sand and granite dust, bronze powder and soot, and rabbit hair. In the establishments where these men worked, local and general exhaust ventilation were provided, but were obviously inadequate.

Silicosis

The Department investigated eight silicosis cases, four of which were fatal. In three of these, workmen were employed in the operation of sandblasting equipment and one in the granite industry. Two men employed in a stove foundry contracted this disease, and one employee who worked around a stone crusher became ill. X-rays showed the effect of silica dust in his lungs. Investigation of these cases indicated that the dust-removal equipment was badly worn out.

Asbestosis

Three cases of asbestosis were investigated in an establishment where brake linings were made, two proving fatal. These men were employed as mule spinners and exposed to a hazardous dust condition. A wetting-down process was introduced and a new exhaust system provided in order to reduce the hazard.

Industrial Anthrax Poisoning

There were eight cases of anthrax involving seven men and one woman reported to the Department as required by statute. Three establishments furnished two cases each. One case was fatal. All the men were employed in tanneries where raw skins were handled. In nearly every instance infection developed in an exposed cut or scratch.

The employee in the fatal case was a laborer in the beamhouse where he had worked for two and one-half years. He cut his lip while shaving. The cut became infected and the attending physician diagnosed his case as anthrax septicemia. In this plant employees are furnished with rubber gloves, rubber aprons and rubber

boots for protection against this disease. Adequate washing facilities were provided. Frequent inspection of the plant was made and sanitary conditions maintained in conformity with the requirements. The women employee was a wood heel worker. Her physician was of the opinion that anthrax was caused through contact with the leather heels which contained anthrax spores. Her incapacity for work continued for about ten weeks.

Benzol Poisoning

Two cases of benzol poisoning were investigated, one of them resulting fatally. In the fatal case the employee was a shoemaker employed in cementing soles. It is claimed that the cause of death was the inhalation of poisonous benzol fumes, although there were other disease complications and it was determined that benzol was used in very limited quantities at the place of employment.

Miscellaneous

Two cases of caisson disease were reported, affecting men employed in the construction of a tunnel. One case of brass poisoning was reported.

Home Work

During the year there were 259 licenses granted to make, alter, repair or finish wearing apparel in a room, apartment or dwelling house. Conferences were held with employers to determine why home work was given out. Generally it was stated that limited factory space encouraged the procedure which was chiefly resorted to during the peak season. These conditions seemed to be especially true of the making of men's neckties, and of embroidered articles. Welfare organizations encouraged the giving out of home work to individuals who were deriving their support from public funds. These organizations were helpful in obtaining compliance with the statute requiring the maintenance of sanitary conditions in the room or apartment in the dwelling house used for making or furnishing wearing apparel. Firms were also approached by these organizations in an effort to get them to provide regular employment for individuals doing home work, thus giving them a larger return for their labor.

Inspectors were required to make investigations in their different districts in order to ascertain to what extent out-of-state contractors for home work were doing business in Massachusetts. The reports made by the inspectors indicated that some years ago fancy articles of embroidery were made to some extent for out-of-state contractors, but it was the opinion of the inspectors that the depression the past four years has practically eliminated employment of this kind.

Persons hiring, employing or contracting with a member of a family to make or adapt for sale by labor performed in a room or apartment in a tenement or dwelling house, on articles other than wearing apparel, have been required to furnish to the Department the names and addresses of the workers so hired, employed or contracted with and of all women and minors dwelling in the same room or apartment and also the ages of girls under twenty-one and boys under eighteen. These requirements are pursuant to Section 147a, Chapter 149 of the General Laws. Each inspector made careful investigation among the establishments located in his district to ascertain the places where work of this kind was being done and also contacted with other sources of information for this purpose. The types of employment in which this home work is being carried on include the making of electrical parts and sockets, tags, shoe bows, women's leather bags, leather lacings in shoe uppers, leather novelties, base balls, greeting cards, handsewing, baby shoes, shoe buckles, shoe ornaments, cloth dolls, paper ornaments, elastic fabrics, paper products, artificial flowers, hand-braided rugs, jewelry, beading for shoes, cutting felt from shoe ornaments, curtains and draperies, celluloid toys and celluloid buckles and ornaments. In every case statutory obligations resting upon the employers with reference to hiring women and children were made known. The statutes regulating the employment of minors in or about or in connection with any factory, manufacturing or other type of industrial establishment was emphasized to them. In checking up possible illegal employment, homes were visited by inspectors in cases where children under eighteen years of age were members of the family. Much of the home work is done by elderly women.

Lockers for Employees

In establishments where the nature of the work rendered it necessary to make a complete change of clothing, separate lockers, closets or other receptacles were provided employees in compliance with seven orders issued for this purpose by the Department. These were installed in hotels, laundries, dyeing and cleansing establishments and tanneries.

Beauty Parlors and Hairdressing Establishments

At the direction of the Commissioner an investigation was made of beauty parlors and hairdressing establishments. Each inspector was required to report the employment conditions found therein throughout his district, together with the information as to sanitary requirements, hours of labors, toilet and washing facilities and compliance with the provisions of the various labor laws. There were 2,419 such establishments inspected, in which 2,611 persons were employed: 1,910 women and 701 men. It was found necessary to post new time notices in 303 of the shops. There were 141 minors between the ages of sixteen and twenty-one included in the group, 74 of whom were employed without educational certificates. Conditions were found to be out of harmony with the statutory requirements in 39 establishments, and orders were issued for correction in these cases. Special attention was given to ventilation and lighting facilities in these places.

Sanitary Survey of Wood Heel Manufacturing Establishments

The extensive use of methanol, wood alcohol and other industrial poisons in wood heel-covering shops suggested that a sanitary survey of the industry would be useful. There were 56 such places of employment visited and the usual sanitary inspection made in each. Information was secured as to the solvents and cements employed in the industrial processes, including nitrate cellulose as the body substance, and the use of acetone, butyl acetate, methyl or wood alcohol and denatured alcohol; the types of containers used and whether they were provided with covers; the exhaust ventilation provided, in general and at the source of origin of the fumes; the sickness record of employees for the year previous, toilet and washing facilities, and the addresses of concerns from whom material were purchased. These establishments are located in Boston, Malden, Chelsea, Lynn, Salem, Newburyport, Amesbury, Haverhill, Methuen, Lawrence and Lowell. There was a total of 534 men and 688 women found employed; also seven boys between the ages of fourteen and sixteen and five girls in the same age group. Certificates were on file for the children, and their employment places were free from dangerous conditions. There were 41 boys and 60 girls between the ages of sixteen and eighteen years employed, for whom certificates were on file.

In the shops, women and girls were employed in covering heels with either plain, fancy or celluloid covers. The first two operations consist of cutting and trimming the leather covers after they have been cemented on with a high-grade naphtha cement. As a general thing the cement containers used under these circumstances were provided with covers, thus preventing the unnecessary spreading of naphtha fumes in the workroom. In the room where the celluloid covers are applied, methanol or synthetic wood alcohol is used to soften the celluloid. This room in practically all of the establishments was set off, enclosed and isolated from the other factory space, usually provided with fire-proof doors, and a window or wall fan, depending on the size of the room, was used for general ventilation. When necessary, orders were issued to clean up shop premises, sinks and toilets; to provide suitable and adequate first aid facilities; to remove obstructions from passageways; to discontinue the use of the common drinking cup; and to clear rubbish from stairways in the tenant factory buildings.

Much attention was given to places where the process of spraying lacquer on wood heels was substituted for the covering with celluloid. Respirators were generally used by the employees and spray hoods were found to be connected to adequate exhausts. In some establishments improvement was ordered made in equipment for the removal of fumes.

The amount of occupational diseases found in these shops was comparatively slight, being limited to five cases of dermatitis.

Investigation of the Use of Benzol in the Shoe Industry

In connection with an inquiry into the use of benzol in the shoe industry, 145 shoe factories were visited, 61 of which had previous experience in the use of this industrial poison, while 11 were using it in the plant without knowledge of its dangerous properties and taking no precaution to protect employees from contact with its fumes. Benzol was used in cements and handled by 191 people: 186 women and five men. The amount of benzol used monthly by these concerns varied from one firm, using a single pint, to another using 100 gallons. It was found that three of the establishments inspected used 60 gallons in the same period; two, 50 gallons; one, 40 gallons. Fourteen of them used 15 to 35 gallons, while the others used less than 10 gallons. Substitutes found used in some of these places included latex and naphtha. In some of these plants cement was used in small open containers and applied with a brush. The benzol was used in connection with cementing crepe rubber soles on sport shoes and in cementing leather and rubber soles, also in cementing channels on outer soles. Fumes from benzol were found in 53 of the plants, and orders to install adequate local and general ventilation were issued.

Weekly Payment Law

The administration of this statute continues to be an instrument of great service to the working people of the State. Employees who have been victimized at the hands of unscrupulous persons come to the Department with their complaints for non-payment of wages and are given practical help in their trouble. After a personal interview with the complainant, the facts in each case are entered upon forms used for this purpose. Questions designed to establish the jurisdiction of the Department and to satisfy the requirements of the statute in case of prosecution are noted therein. The employer is then notified by correspondence of the amount due, and if payment is not made promptly, demand is made by the special investigator of the Division. If refusal or failure to comply with the requirements of the Weekly Payment Law takes place, action in court is brought by the Department. This procedure has proven successful to hundreds of men and women during the year without any expense to them. The experience of the Division indicates clearly that serious injury is imposed on his family when the laborer is defrauded of his wages. In 1933, 2,225 complaints were investigated. It was necessary to prosecute in 696 cases. The total amount paid by the employers after complaint was filed was $54,448.72. Small amounts were usually involved, making it unprofitable for the employee to seek legal assistance. Many claims arise from disputes over the wage rate. When conflicting statements are made by the parties, much of the special investigator's time is occupied in bringing about an agreement and preparing the way for compliance with the statute. This practice has proven satisfactory to all parties concerned.

An important feature of this work is giving advice to persons who are having difficulties with the trustee process or the assignment of wages law. When a complaint does not come within the jurisdiction of the criminal law, the employee is advised of the correct procedure in the recovery of the wages earned. The courts have become very familiar with the work done in these cases and frequently will require that the plaintiffs and the defendant have a conference at the Department with the representatives for the purpose of reaching an agreed statement of facts. This practice usually results in the case coming to an amicable settlement.

The branch offices, located in Fall River, Pittsfield, Lawrence, Worcester and Springfield, render this service to wage-earners who call for assistance in these matters. Public welfare organizations and other agencies continue to advise employees who have been victimized in failure to secure their wages to take advantage of the service given by this Department. Police departments and court officials generally follow the same procedure.

Law Enforcement

During the year ending November 30, 1933, the Department instituted 1,223 prosecutions as against 1,181 for the preceding year. The majority of the more serious prosecutions were for violations of the sections dealing with the employment

of women and minors. Here follows a tabulation of the complaints entered in court and of their disposition:

1,223 Prosecutions:

876 guilty; 61 not guilty; 236 dismissed; 50 defaults.

876 Guilty Cases consisted of the following violations:

504 Women and Minors Violations
357 Wage Complaints
8 Painting Rule Violations
1 Building Rule Violations
5 Public Works Violations (2 citizens' preference law violations, 3 veterans' preference law violations)
1 Illegal Advertising Violation

The penalties in the 876 Guilty Findings were as follows:

504 Women and Minors Violations:

On 34 counts 3 defendants were fined a total each of $100, for employing 23 women and minors overtime; employing 10 women and minors at time other than stated on the printed notice; and 1 locked door violation.

On 18 counts 1 defendant was fined a total of $75 for employing 9 women and minors overtime; employing 9 women and minors at time other than stated on the printed notice.

On 9 counts 1 defendant was fined $70 for failing to procure 3 certificates for minors; failing to post 3 time notices; employing 3 minors overtime.

On 8 counts 1 defendant was fined $60 for failing to procure 4 certificates for minors; employing 4 minors at time other than stated in printed notice.

On 159 counts 33 defendants were fined $50 each for the following violations:
86 counts employment of women and minors at time other than stated on printed notice.
47 counts overtime employment of women and minors.
13 counts failing to post time notices.
10 counts failing to procure certificates for minors.
1 count locked door violation.
1 count violation one day's rest in seven law.
1 count illegal public exhibition of minor.

On 4 counts 1 defendant was fined $25 for failing to procure 2 certificates for minors; overtime employment of 2 minors.

On 58 counts 14 defendants were fined $10 each for
21 counts failing to procure certificates for minors.
16 counts failing to post time notices.
6 counts employing minors after 10 p. m.
5 counts employment at time other than stated on the printed notice.
4 counts employing minors after 6 p. m.
3 counts overtime employment.
3 counts illegal employment of minors.

On 3 counts 1 defendant was fined $5.00 on each count for
1 count failing to provide medical chest.
1 count failing to provide shades for lights.
1 count violation of toilet rules.

On 33 counts 11 *defendants' cases were filed on payment of court costs:*
19 counts employment of women and minors at time other than stated on the printed notice.
11 counts overtime employment of women and minors.
1 count employment of minor before 6:30 a. m.
1 count employment of minor after 10 p. m.
1 count violation one day's rest in seven law.

On 3 counts 1 *defendant was fined $150 — suspended — placed on probation:*
2 counts overtime employment.
1 count failing to post time notice.

On 3 counts 1 *defendant was fined $100 — suspended — placed on probation.*
3 counts employing women at time other than stated on the printed notice.
On 4 counts 2 *defendants were fined $50 each — suspended — placed on probation:*
1 count failing to post time notice.
1 count failing to procure certificate for minor.
1 count employment at time other than stated on printed notice.
1 count overtime employment.
On 33 counts 9 *defendants' cases were placed on probation:*
20 counts employment at time other than stated on the printed notice.
5 counts overtime employment.
4 counts failing to procure certificates for minors.
2 counts employment of minors after 10 p. m.
1 count failing to post time notice.
1 count failing to give 45 minute lunch period.
On 135 counts 35 *defendants' cases were placed on file:*
59 counts employment of women and minors at time other than stated on printed notice.
28 counts overtime employment of women and minors.
18 counts failing to post time notice.
10 counts failing to procure certificates for minors.
5 counts employment of minors after 10 p. m.
5 counts failing to post Sunday Schedule.
4 counts employment of minors after 6 p. m.
3 counts violation of toilet rules.
2 counts violation of one day's rest in seven law.
1 count illegal employment of minor.

357 Wage Complaints:
On 11 counts 4 defendants were sentenced to House of Correction, terms 10 days to a month.
46 counts 8 defendants were sentenced to House of Correction, 2 weeks to 6 months-suspended-probation.
1 count 1 defendant was fined $50.
7 counts 1 defendant was fined $25.
1 count 1 defendant was fined $25, suspended for 3 months.
6 counts 5 defendants were fined $10 each.
7 counts 1 defendant's case filed on payment of court costs.
150 counts defendants' cases placed on probation, wages paid through the courts.
On 128 counts defendants cases placed on file, wages paid.

8 Painting Rules Violations:
On 2 counts 1 defendant was fined $25.
2 counts 1 defendant was fined $10.
4 counts 3 defendants' cases were filed.

1 Building Rules Violation:
On 1 count a defendant's case was filed.

3 Veterans' Preference Law Violations:
On 3 counts a defendant's case was filed.

2 Citizens' Preference Law Violations:
On 2 counts a defendant was fined $20.

1 Illegal Advertising violation: defendant's case filed.

For the year ending November 30, 1933. On *135* counts of violation of Labor Laws defendants *appealed* from lower court decisions, and the following dispositions resulted:

41 — *Counts: Violations Women and Minors Laws:*

Lower Court	*Superior Court*
On 8 counts a defendant was fined total of $400	Plea of Nolo accepted, fined $50
On 6 counts a defendant was fined total of 200	Fined $50 on 1 count; others filed
On 4 counts a defendant was fined total of 160	Found Not Guilty

Lower Court	*Superior Court*
On 7 counts a defendant was fined total of $100	Fined $50 on 1 count; others filed
On 2 counts a defendant was fined total of 60	Plea of Nolo accepted, fined $10
On 4 counts a defendant was fined total of 50	Plea of Nolo accepted, cases filed
On 9 counts a defendant was fined total of 50	Plea of Nolo accepted, cases filed
On 1 count a defendant was fined total of 25	Case filed

33 — *Counts: Violations Weekly payment law:*

Lower Court	*Superior Court*
On 6 counts a defendant sentenced 6 mos. H. of C.	Cases filed
On 3 counts a defendant sentenced 3 mos. H. of C.	Cases filed
On 1 count a defendant sentenced 1 mo. H. of C.	Case filed
On 1 count a defendant sentenced 1 mo. H. of C.	Case filed
On 4 counts a defendant was fined total of $100	Case continued generally — (Probation)
On 1 count a defendant was fined total of 50	Placed on probation
On 1 count a defendant was fined total of 50	Case filed
On 1 count a defendant was fined total of 50	Placed on probation
On 9 counts a defendant was fined $25 on each count	Defaulted
On 2 counts a defendant was fined 10 on each count	Nol Prossed
On 2 counts a defendant was placed on probation	Placed on Probation
On 2 counts a defendant was fined total of $20	Not Guilty

61 — Other counts: (19 women and minors — 42 wage complaints) have not as yet been reached or disposed of in the Superior Court.

For the year ending November 30, 1933, the Department assisted *766* persons in making application for hearings under the provisions of section 149, chapter 149 of the General Laws. This procedure generally takes place where the department finds after investigation of the matter that the three month period allowed for filing complaints with the court under section 148 of chapter 149 has elapsed.

After hearing the parties, the courts issued complaints in —
396 — cases and the following dispositions were made:
273 counts, defendants were found guilty:
215 were filed and placed on probation, wages having been paid.
50 counts, defendants fined from $10 to $100.
8 counts, defendants sentenced to House of Correction — on these appeals taken to Superior Court.
62 counts were dismissed, wages having been paid.
19 counts were dismissed, lack of prosecution.
34 counts defendants were defaulted.
8 counts defendants found not guilty.

After hearing the parties, the courts denied complaints in —
370 — cases, for the following reasons:
Where contracts, set-offs or disputes existed.
Where complaining parties failed to appear after being notified.
Where complainants were hired by deceased wife of the defendant.
Where civil action was pending between the parties.
Where complainants were stockholders in defendant corporation.
Where chart stated it was no collection agency.
Where amount due extended over too long a period (3 years).

876 Labor Law violations occurred in the following industries:

504 Women and Minors Violations:

269 occurred in manufacturing establishments.
146 occurred in mercantile establishments.
69 occurred in mechanical establishments.
18 occurred in workshops.
1 occurred in hotel.
1 occurred in theatre.

357 Violations Weekly Payment Law.

127 occurred among contractors (erection, alteration, repair buildings, structures).
72 occurred in manufacturing establishments.
67 occurred in mercantile establishments.
39 occurred in mechanical establishments.
14 occurred in express companies (transportation).
12 occurred in theatres.
11 occurred in bakeries.

9 occurred among musicians.
4 occurred in workshops.
2 occurred among janitors.
1 Illegal Advertising — manufacturing establishment.
14 Violations: Painting and building rules, veterans' and citizens' preference, contractors.

The sum of $54,448.72 was paid by employers after the Department had acted on the complaints of employees, from December 1, 1932, to November 30, 1933. During the bank holidays called by the Government in March, 1933, the Department suspended action in the taking of complaints where non-payment existed because of the holiday period.

The Department is encountering some difficulty in its attempts to enforce the labor laws. That is due, in a great measure, to a lack of uniformity of practice in the municipal and district courts in dealing with the violations. Some courts give to our laws the strictest and narrowest construction, on the ground that they are penal laws. They do not seem to take into account the decisions of our Supreme Court, which hold that statutes enacted to promote the moral and physical welfare of women and children in industry, although carrying a penalty for their violation, are not properly penal laws and should be construed broadly and liberally. The courts have also widely divergent views on the gravity of a particular violation, as, for instance, the duration of prohibited overtime employment, some judges holding that an overtime of fifteen or even thirty minutes is trivial and does not call for punishment, in spite of the fact that in Commonwealth vs. Riley, 210 Mass. 387, the violation was only of five minutes duration. In one typical case where the employer had required his women employees to work extra hours in taking his inventory, the judge declined to impose a penalty, and stated that, although there might have been a technical violation, the statute was not intended to punish in such cases. It appears to the legal officer of the Department that the word "technical" is very much abused. In section 57 of Chapter 149 of the General Laws it is provided in connection with cases where the Department is prosecuting that a person found guilty of violating the provisions of Section 56 "shall" be punished by a fine. Some judges hold this to be mandatory. Other judges (the greater number) hold that the punishment is altogether within their discretion.

It may be apropos to quote here one of the dicta of our great Chief Justice Shaw: "Wherever laws, however wise, discriminating and salutary, through a defect in the administration of justice, should fail to inflict the proposed punishment upon the actually guilty, they would fail to command the respect and obedience of the subject, which is their sole object."

Public Works

Regular inspection was given to State projects for the construction of public works, including the building of roadways and the erection of schoolhouses, the construction of walls and bridges. The total appropriation of the Department of Public Works for this purpose in 1933 was $6,779,195.48. There was received from the United States Government the sum of $3,179,882.93 on Federal aided projects. The maximum number of men employed by contractors on highway contracts at any one time, not including regular State employees, was 5,022.

There was a total of 755 inspections of road construction work and a total of 83 orders issued to contractors. These included citizens' preference, 71; weekly payment of wages, three; 48-hour week, seven; prevailing rate of wages, two. Complaints alleging violations of law on public works were less numerous than in previous years. There was a total of 85 of these, classified as follows: Citizens' preference, 41; veterans' preference, 30; overtime employment, six; prevailing rate of wages, five; laborers' vacations, three.

In January, 1933, the Massachusetts Supreme Court ruled that the prevailing rate of wages provision included in Section 26 of Chapter 149, Tercentenary Edition of the General Laws, were unconstitutional. This result followed action taken by the Department in upholding the provisions of the statute requiring that the prevailing rate of wages be paid to journeymen carpenters employed on a public work project. In arriving at its decision which is given here in part, the court based its conclusions principally on certain United States decisions, notably the case of Connally vs. General Construction Company, 269, s. 385.

MASSACHUSETTS SUPREME COURT DECISION ON PREVAILING RATE OF WAGES

(January, 1933)

COMMONWEALTH vs. DANIEL O'CONNELL'S SONS

"RUGG, C. J. This is an indictment for violation of St. 1931, c. 377, amending the earlier statute and now found in General Laws, (Ter. Ed.) c. 149, s. 26. Trial by jury having been waived, the defendant was found guilty upon the first three counts. During the trial the question of the constitutionality of that part of the statute upon which the indictment was framed was raised by the defendant. That question was reported by the trial judge for our decision at the request of the defendant after conviction. G. L. (Ter. Ed.) c. 278, s. 30. Commonwealth vs. McCan, 277 Mass. 199.

"The agreed facts relevant to the question reported are in substance as follows: At the times alleged the defendant was engaged, under contract with the Commonwealth, in the construction of the Cheapside Bridge spanning the Deerfield River on the main road between Greenfield and Deerfield. The bridge was a public work. The defendant was a general contractor and had its office at the job on the Deerfield side of the bridge. Substantially all building contractors in the thickly populated section of the town of Greenfield immediately across the river from the Cheapside job office of the defendant were paying journeymen carpenters at the rate of $1 per hour for a day's wages. These journeymen carpenters were employed in the erection of a county building and private buildings other than bridges, there being no other bridge construction within the confines of Greenfield or Deerfield. The journeymen carpenters employed on the bridge were engaged principally in an inferior grade of carpentry known as form building. On the dates alleged in the indictment there was no sufficient amount of building going on in the town of Deerfield so that it could be determined what rate of wages was being paid to men doing the type of work that was being done at the bridge. The three men named in the first three counts, residents of Holyoke, were on the dates alleged duly qualified and listed as union journeymen. There was evidence tending to show that on the dates alleged these three men by reason of an arrangement, to which they consented and under which they continued to work, received wages at the rate of $.75 per hour.

"The only question presented for decision is the constitutionality of the statute. Its pertinent words are these: 'The wages for a day's work paid to mechanics and teamsters employed in the construction, addition to or alteration of public works' 'by the commonwealth, or by a county, town or district, or by persons contracting therewith for such construction, addition to and alteration of public works' 'shall not be less than the customary and prevailing rate of wages for a day's work in the same trade or occupation in the locality where such public works are under construction or being added to or altered. . . . Any person or contractor who knowingly and wilfully violates this section shall be punished by a fine or not more than one hundred dollars.' "

In the discussion the Court quoted extensively from the case of Connally *vs.* General Construction Company, 269 U. S. 385. A portion of the material so quoted follows:

"To construe the phrase 'current rate of wages' as meaning either the lowest rate or the highest rate or any intermediate rate or, if it were possible to determine the various factors to be considered, an average of all rates, would be as likely to defeat the purpose of the Legislature as to promote it. . . . In the second place, additional obscurity is imparted to the statute by the use of the qualifying word 'locality'. Who can say, with any degree of accuracy, what areas constitute the locality where a given piece of work is being done? Two men moving in any direction from the place of operations, would not be at all likely to agree upon the point where they had passed the boundary which separated the locality of that work from the next locality. . . . In other connections or under other conditions the term 'locality' might be

definite enough, but not so in a statute such as that under review imposing criminal penalties. Certainly, the expression 'near the place' leaves much to be desired in the way of a delimitation of boundaries; for it at once provokes the inquiry, 'how near?' And this element of uncertainty cannot here be put aside as of no consequence, for, as the rate of wages may vary . . . among different employers and according to the relative efficiency of the workmen, so it may vary in different sections. The result is that the application of the law depends not upon a word of fixed meaning in itself, or one made definite by statutory or judicial definition, or by the context or other legitimate aid to its construction, but upon the probably varying impressions of juries as to whether given areas are or are not to be included within particular localities. The constitutional guaranty of due process cannot be allowed to rest upon a support so equivocal. . . .

"The answer to the question reported is that the part G. L. (Ter. Ed.) c. 149, s. 26, set forth in the report violates the Fourteenth Amendment of the United States Constitution. The case is remanded for further proceedings not inconsistent with this opinion."

Since the year 1914, the prevailing rate of wages law in Massachusetts has been a subject of much discussion and controversy. In that year an amendment was made to the statutes of 1909 which required the regulation of wages for mechanics and laborers employed in the construction of public works by providing that such wages should not be less than the customary rate for a day's work in the same trade or occupation in the locality, city or town where such public works are constructed.

This amendment was advocated by its proponents on the ground that employment on public works would be reserved for citizens and that contractors knowing the prevailing rate of wages in the various localities could bid for these projects on the basis of competitive equality. It was believed that this provision would strengthen the existing preference statute and discourage the contractor in bringing alien labor into a community to compete for employment at cheaper rates with citizens of the Commonwealth.

In the past twenty years, nineteen different measures have been presented to the Massachusetts Legislature on this subject. It was decided by the General Court in 1932 of that year that an investigation should be made by the Department of Labor and Industries into the prevailing rate of wages to laborers, workmen and mechanics in the construction of public works. On December 5, 1932, the Commissioner filed a report including a recommended bill. This was printed as Senate Document No. 300. The bill provided that the prevailing rate of wages should be paid to laborers as well as mechanics on public works; that prior determination of wages to be paid should be made by the Department of Labor and Industries before the calling for bids on a public works contract.

Despite considerable public interest in these matters as evidenced by large attendance at the hearings on Senate No. 300 and other bills introduced on the subject, no legislation was passed this year. Massachusetts at the present time is without legislation providing for the control of wages on public works.

On highway projects, financed in whole or in part by the National Industrial Recovery Act, and Chapter 365 of the Acts of the Commonwealth of Massachusetts, there was co-operation with the Department of Public Works in supervising the hours of employment and the rates of wages for laborers and mechanics. On these projects men were hired to work for thirty hours a week except that time lost because of inclement weather or shutdowns could be made up during the succeeding week or weeks of any calendar month. It was under these conditions that forty hours a week were permitted in certain employments and much confusion existed among employers and workmen as to the operation of this rule. At the request of the parties concerned, appeal was made to the Bureau of Public Roads, United States Department of Agriculture, Washington, D. C., for an interpretation of these provisions. It was ruled that on any operations where men were employed on a forty-hour week basis, the contractor was required to present a certificate from the manager of the local employment agency to the effect that he is unable to furnish men in sufficient numbers to operate on a thirty-hour week basis. This ruling did much to eliminate confusion on this point.

New Duties Assigned by the Legislature of 1933

Chapter 64 provided for the maintenance of proper toilet facilities in industrial establishments by amending Section 133, Chapter 149 of the General Laws (Tercentenary Edition). It made possible prompt action in cases where sanitary conditions were found in bad condition. It repealed the old law which provided that no court action could be taken to require changes in toilet facilities without thirty days' notice in writing. The new law permits immediate prosecution at the discretion of the Department.

Chapter 193, an act further regulating the hours of labor of women and children in the manufacture of leather, amending Section 59, Chapter 149 of the General Laws (Ter. Ed.), by prohibiting the employment of women over twenty-one in the manufacturing of leather, after six o'clock in the evening.

Chapter 225 constituted an amendment to the One Day's Rest in Seven Law. The new statute provides that watchmen and firemen employed in manufacturing and mercantile establishments, where the boiler pressure capacity exceeds fifteen pounds, must be given twenty-four consecutive hours of rest in every seven consecutive days. This enactment met with compliance as its provisions were made known. It was proposed by the Department as the result of a study which it was directed to make by the Legislature.

Chapter 268 of the Acts of 1933 was intended to insure to piece and job workers in factories and workshops knowledge of their rates of compensation. This legislation was adopted as the result of numerous complaints in certain industries that employees working by the piece were not promptly acquainted with their rates of pay when working on new jobs, thus making possible manipulation of piece rates in a manner prejudicial to the workers' interests. This act became Section 157A, Chapter 149 of the General Laws (Ter. Ed.), and requires that employees paid by the piece shall be furnished promptly with the basis of remuneration for the operation they were employed to do. The fundamental purpose of the law is to have employees promptly informed as to the rate of pay they are to receive. This law became operative on September 16, 1933, and general co-operation is given to its compliance.

Chapter 324 of the Acts of 1933 was legislation proposed by the Department because of the difficulties experienced by the inspection force in controlling the use of benzol, particularly where this toxic substance appeared in compounds bearing simply trade names and not having on the container a chemical description of the contents. The new law enables the Department to safeguard the employee against exposure to benzol by providing that no person shall keep for sale, sell or transport or store, and that no person shall have for use in any manufacturing or mercantile establishment any material containing benzol in any receptacle, other than as part of a vehicle used exclusively for outdoor transportation, unless such receptacle is marked with one of these combinations of words and figures: "Contains less than 20% benzol"; "Contains 10% to 60% benzol"; "Contains more than 50% benzol"; indicating the proportion of benzol incorporated in the mixture as last compounded, and has the words "Beware of Poisonous Fumes."

Chapter 347 of the Acts of 1933 authorized the Commissioner of Labor and Industries to suspend the six o'clock law, so-called, relating to the hours of employment of women in the textile and leather industries during the operation of the codes for the regulation of the textile and leather industries adopted under the National Industrial Recovery Act. In accordance with the provisions of this statute, regulations have been made by the Commissioner, to which reference is made in his own report, relating to the employment of women after six o'clock in the evening in carpet and rug manufacturing, hosiery and knitwear, wool textiles, silk and rayon, cotton textiles and thread. Good co-operation with the requirements of these regulations has been received.

Chapter 351 of the Acts of 1933 became Section 20A of Chapter 149 of the General Laws (Ter. Ed.). The provisions of this new legislation concerned written or oral contracts between employers and employees in which the employee undertakes not to join or remain a member of a labor organization, the so-called "Yellow Dog" Contract. The new section means that no labor contracts of the type therein described shall afford a basis for the granting of court relief against anybody who has become a party to any undertaking or promise contained in such a contract.

It does not, however, prevent the entering into contracts by which either party undertakes or promises not to join or not to remain a member of a labor organization, and although finding a permanent place in Chapter 149 of the General Laws (Ter. Ed.), it is not a criminal statute. Its implications are concerned with Section 20, Chapter 149 of the General Laws (Ter. Ed.), which is a criminal statute and for this reason mentioned here. This became operative on October 22, 1933.

Resignations

During the year two inspectors resigned from the Division to fill important places in public service. On November 1, 1918, Inspector Joseph F. O'Brien began his work with the Department. On October 4, 1933, he was transferred to the Alcoholic Beverage Control Commission. His new duties included organizing the inspection work incidental to certain adjustments in the laws regulating the manufacture, transportation and sale of wines and malt beverages. In the Department of Labor and Industries he earned a reputation for efficient work and enjoyed the respect and appreciation of his associates.

Inspector William D. Collins began his career with the Department on February 17, 1919, and on December 21, 1932, was appointed by His Excellency Joseph B. Ely to the important position of Clerk of the Municipal Court of the City of Boston. Inspector Collins was faithful in the performance of his work and gave competent service to the Department.

Death of Inspector John P. Sullivan

On August 5, 1918, John P. Sullivan became officially connected with this Department and was attached to the Fall River office. On August 12, 1933, he died. Before becoming affiliated with the Department of Labor and Industries he had wide experience in police work and for a long period was connected with the fire department of the city of Fall River. He was with this Department for fifteen years and was always known as a courteous and friendly associate. In his home city he was looked upon by those who knew him well as a capable man, solicitous in doing the day's work and meeting his duties and obligations as a public-spirited citizen. His funeral was attended by a large concourse of people. Various civic organizations, fraternal groups, prominent clergymen and laity attended the obsequies. With his associates he left the memory of a kindly and friendly man.

REPORT OF THE DEPARTMENT'S OCCUPATIONAL HYGIENIST, MANFRED BOWDITCH

The work in occupational hygiene, inaugurated in April, 1932, was carried forward in 1933 along the lines set forth in the last annual report. Principal activities have been in connection with (1) the department's painting code, (2) the benzol labeling law, and (3) the legislative inquiry into the problem of dust diseases in the granite and foundry industries.

Painting Code. — The committee of master painters, journeymen and others at interest appointed to revise the department's painting code completed its work in August and the "Revised Rules, Regulations and Recommendations Pertaining to Structural Painting," adopted by the department on September 7, became effective November 1. Prepared for the committee's consideration by the occupational hygienist, the new code contains over 75% new material and represents in many respects radical departure from previous practice. Principal among these are (a) application of the rules not merely to those engaged in the painting business, but to "every person or firm employing one or more persons in the painting of structural property", (b) the requirement of annual registration with the department of all rigging used in such painting operations*, (c) the requirement that a "painter's rigger", examined and certificated by the department, be employed by every employer using rigging in painting operations*, (d) drastic restriction of the hazardous practice of swinging stages from the gutters of buildings, (e) the requirement of a safety factor of four in all devices for the support of persons, (f) the requirement of approval by the department of the design of stage beds, hangers, life belts,

*Privately owned rigging used in painting single residential property and rigging eight feet or less in height, not attached or suspended, are excepted.

trestle ladders, extension planks, extension roof boards, scaffold and ladder jacks and certain other types of supporting device, and (g) placing of responsibility on the employee for the use of protective devices supplied to him.

Although these regulations have been in force but a short time as this report is written, their value in the enforcement of proper safety and health standards is already apparent.

Benzol Labeling Law. — The effort to secure legislation requiring that benzol (coal tar benzene) and its compounds bear a poison warning label came to a successful close when "an act regulating the sale, distribution, storage and use of benzol and its compounds" was approved by Governor Ely on June 28. This act, comprising Sections 142 B, C, D, E and F of Chapter 149 of the General Laws, provides that every receptacle, other than part of a vehicle used exclusively for outdoor transportation, containing benzol or a benzol compound, shall be clearly and conspicuously so marked and shall bear the words, "BEWARE OF POISONOUS FUMES." The commissioner is authorized to make certain exemptions and to require reports of the manufacture, sale, use, etc., of benzol and benzol compounds.

General recognition of the need of such a law led to marked co-operation on the part of manufacturers and others in its preparation and passage. Although similar legislation has been sought elsewhere, it is believed that the Massachusetts benzol labeling law is unique in the United States.

Granite and Foundry Survey. — Reference was made in the last annual report to pressing need for a survey of the granite industry of the state with respect to dust conditions causing the incurable occupational disease known as "silicosis", which frequently paves the way for fatal tuberculosis. A ten-point program for the survey, on which a beginning was made in 1932, was outlined.

A series of events in the spring of 1933, including the widely publicized case of the Taunton molders, brought both the granite and foundry dust problems sharply to the legislative foreground and resulted in the establishment of a special commission, composed of the commissioner of labor and industries, the commissioner of public health, the chairman of the Department of Industrial Accidents, the commissioner of insurance and the attorney general, "to investigate and study the problem of diseases caused by dust in the granite and foundry industries, of protection from said diseases, and of compensation insurance in said industries and the problem of industrial disease compensation generally." While this action by the Legislature begot an investigation under broader auspices and of materially greater scope than the departmental study previously contemplated, the election of the commissioner of labor and industries as chairman and the appointment of the occupational hygienist as executive secretary to the investigating commission assured major participation by this department. The ten-point program above referred to was adopted as the basis for the commission's investigation and the results of the survey of granite establishments already completed were embodied in its findings.

The resolve establishing the Special Industrial Disease Commission was approved on July 12, the commission held its first meeting on July 13, and the occupational hygiene office of the department became the office of the commission for the remainder of the year. Because of the magnitude of the work undertaken, it was found necessary to defer the date for filing the commission's report from December 1, 1933, to February 1, 1934, and a complete summary of its activities can therefore not be given in this report. At the close of 1933, however, eight public hearings and 41 meetings and conferences had been held in Boston, Taunton, Worcester, Philadelphia, Washington, Buffalo, Rochester, Saranac Lake and New York City and fifteen granite and foundry establishments had been visited by the commission. Special inspection of the state's 314 granite establishments and 225 foundries had been completed, measurements of dust concentration made in selected plants, representative samples of foundry dusts petrographically analyzed, and important dust-producing processes photographed. Members of the staff of the Department of Public Health had physically examined and x-rayed 961, or 46 per cent, of the state's 2,100* granite workers and 1,614, or 24 per cent, of its 6,700* foundry employees, municipal vital statistics had been studied and pertinent data drawn

*Approximate figures.

from the records of the Department of Industrial Accidents. Correspondence with employers' and labor organizations and governmental officials in many states, as well as study of the literature on the subjects of the investigation, had brought to the office a wealth of material, including as this is written well over 200 articles and volumes dealing with the medical, legal, engineering, economic and administrative phases of the silicosis problem.

The above should suffice to make clear that little outside the scope of this investigation could be undertaken during the latter half of 1932. A summary of the commission's findings and their legislative results will find place in the next annual report.

It was said in the 1932 report that "the major difficulty with which the work in occupational hygiene has to contend is the elementary one of man-power." This still holds true. With a single individual in state employ devoting full time to this increasingly important subject, Massachusetts is outstripped 10 to 1 by Connecticut and 16 to 1 by New York, its two most important industrial neighbors.* However, the facts uncovered by the Special Industrial Disease Commission's investigation so clearly demonstrate the need of more adequate work in this field that failure on the part of the 1934 Legislature to establish in this Department a Division of Occupational Hygiene seems all but unthinkable.

The department's Occupational Health Council continues of great value as a source of individual advice and assistance in the many special problems with which we are confronted. Membership in the council now stands at 23, Dr. Henry D. Chadwick, who on September 30 succeeded Dr. George H. Bigelow as commissioner of public health, having consented to serve as a member of the group.

*Connecticut, Bureau of Occupational Diseases, 4 employees; New York, Division of Industrial Hygiene, 32 employees. Statistical Abstract of the U. S., 1933; industrial wage earners: Massachusetts 434,441, Connecticut 192,174, New York 848,352.

REPORT OF THE DIVISION OF STATISTICS

Roswell F. Phelps, *Director*

Introductory

The principal branches of the work of the Division of Statistics are the collection and publication of statistics of labor and manufactures and the answering of inquiries relative to industrial conditions in the Commonwealth. These several branches of the work of the Division during the year 1933 are discussed in this report.

The statistical data herein presented relate for the most part to the calendar year 1933, but summary data for certain prior years are also included for purposes of comparison, and charts showing, graphically, the trends of employment and earnings of wage-earners in the principal industries and municipalities appear in the appendix to this report. As there is no separate printed bulletin of this Division in which these tables and charts have been published, it has seemed advisable to include them in this report for purposes of permanent record.

During the year, the Division has further extended the scope of its monthly surveys relative to employment and earnings of wage-earners in the Commonwealth. These surveys now cover all of the important manufacturing industries, wholesale and retail trade, building and highway construction, public utilities, municipal employment, office employment and agriculture, and it is believed that the results indicate quite truly the changes from month to month in employment and earnings of those employed in all important fields of employment in Massachusetts.

A considerable addition to the work of the Division since May, 1933, has consisted in the furnishing of basic information for use by various agencies and individuals engaged in the formulation of codes in connection with the work of the National Recovery Administration. For the most part this information was already available either in printed or mimeographed reports of the Division, or was on file in manuscript form, but it was usually necessary to tabulate the data in such manner as to properly answer the purposes of the inquirer. In some cases special inquiries were undertaken in order to secure additional information supplementing that already available.

Industrial Changes in Massachusetts Since 1913

In discussing industrial changes, particularly at a time when a large portion of the wage-earning population is temporarily unemployed, or employed on short time with reduced earnings, it is the practice, all too prevalent, to compare existing conditions with the more prosperous conditions which existed during a former period of great industrial activity. Such comparison is apt to result in misleading conclusions as to the actual state of affairs. It is well, therefore, to determine whether or not, over a long period of time, the changes which have occurred are the result of permanent or merely temporary economic readjustments.

In this section of this report the industrial changes which have occurred in Massachusetts since 1913 are briefly reviewed.

In Table 1 data are presented, for the years 1913 to 1933, inclusive, showing the average number of wage-earners employed in the manufacturing industries in the Commonwealth, the average annual earnings of those employed, the real value of their yearly earnings, and the relative cost of living in Massachusetts, based on wage-earners' budgets. Corresponding index numbers for each of these items are also presented. These index numbers have been computed, using as a base (100.0) the respective data for the year 1913. The trends are shown, graphically, on the accompanying chart.

Table 1. — Industrial Trends in Massachusetts, 1913–1933

(Base — 1913 = 100)

Years	Average Number Employed in Manufacturing		Amount Paid in Wages during the Year		Average Annual Earnings		Index Numbers	
	Absolute	Index Number	Dollars (000 omitted)	Index Number	Dollars	Index Number	Cost of Living[1]	Real Value of Average Annual Earnings
1913	*616,927*	*100.0*	*$351,300*	*100.0*	*$569.43*	*100.0*	*100.0*	*100.0*
1914	606,698	98.3	341,310	97.2	562.57	98.8	102.1	96.8
1915	596,348	96.7	346,243	98.6	580.61	102.0	102.2	99.8
1916	682,621	110.6	447,958	127.5	656.23	115.2	110.4	104.3
1917	708,421	114.8	537,145	152.9	758.23	133.2	129.5	102.9
1918	719,210	116.6	679,401	193.4	944.65	165.9	154.5	107.4
1919	713,836	115.7	766,623	218.2	1,073.95	188.6	172.6	109.3
1920	695,832	112.8	891,177	253.7	1,280.74	224.9	195.3	115.2
1921	579,071	93.9	641,361	182.6	1,107.57	194.5	163.7	118.8
1922	612,682	99.3	678,074	193.0	1,106.73	194.4	156.1	124.5
1923	667,443	108.2	799,363	227.5	1,197.65	210.3	159.4	131.9
1924	589,364	95.5	711,812	202.6	1,207.76	212.1	159.2	133.2
1925	591,438	95.9	716,156	203.8	1,210.87	212.7	163.3	130.3
1926	602,343	97.6	738,209	210.1	1,225.56	215.2	163.1	131.9
1927	578,068	93.7	705,930	200.9	1,221.19	214.5	159.4	134.6
1928	540,927	87.7	670,063	190.7	1,238.73	217.5	159.8	136.1
1929	557,494	90.3	694,805	197.8	1,246.39	218.9	160.6	136.3
1930	481,449	78.0	573,838	163.3	1,191.89	209.3	155.0	135.0
1931	434,441	70.4	474,189	135.0	1,091.49	191.7	141.4	135.6
1932	350,521	56.8	334,359	95.2	953.89	167.5	122.4	136.8
1933[2]	380,036[2]	61.6[2]	357,095[2]	101.6[2]	939.63[2]	165.0	123.5	133.6

[1] Compiled from reports of the Massachusetts Commission on the Necessaries of Life, 1913–1929, and the Division on the Necessaries of Life, Massachusetts Department of Labor and Industries, 1930–1933.

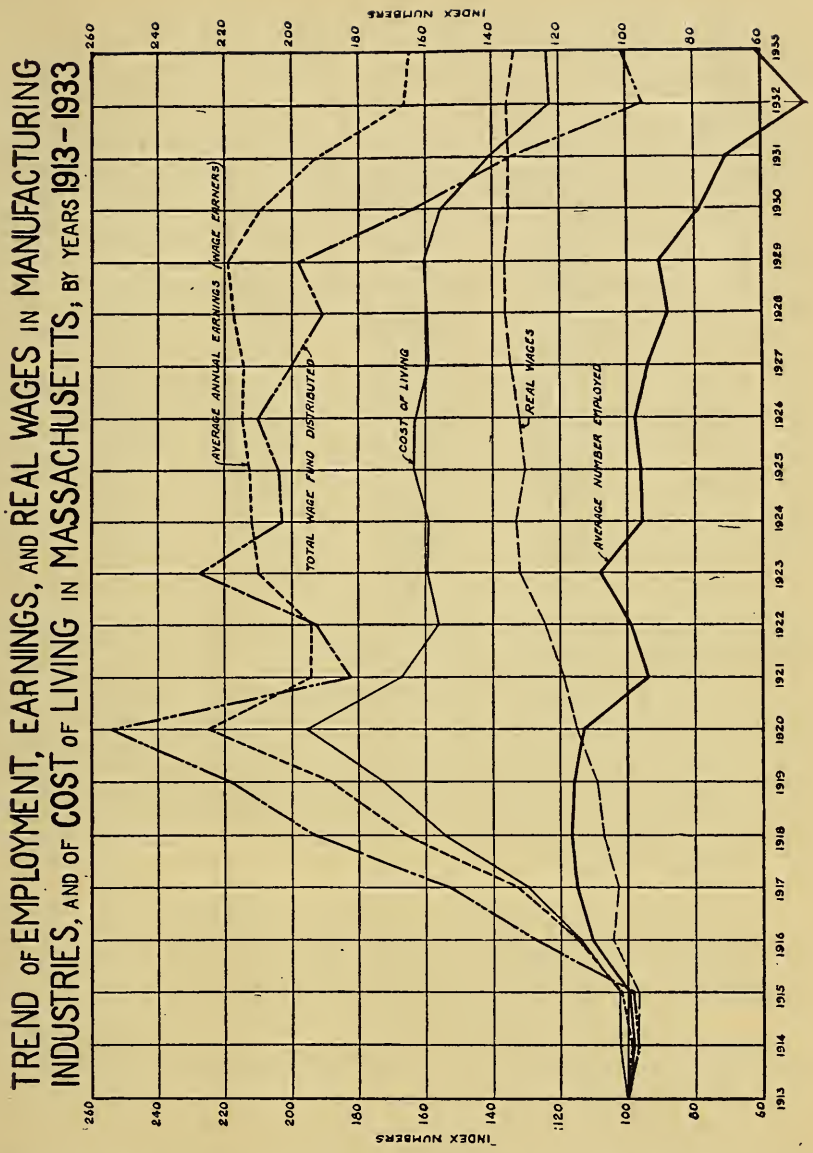
[2] Estimates based on results of "Monthly Surveys of Employment and Earnings in *Representative* Manufacturing Establishments," by the Division of Statistics, Massachusetts Department of Labor and Industries.

On reference to Table 1 and the chart, it will be observed that 1920 was the year of greatest industrial activity in Massachusetts. Then followed the industrial depression beginning the latter part of 1920 and continuing through the year 1921, and the early portion of 1922. Since 1923, except for the years 1926 and 1929, when slight improvements were noted, the number employed in the manufacturing industries has steadily decreased, until 1933 when an increase in employment was noted. These changes are indicated by the index numbers of employment for the several years, and by the curve on the chart designated as "Average Number Employed." The index number of employment for the year 1932 was 56.8, representing a reduction of 53.2 per cent in the number employed in that year, as compared with the number employed in 1913, and for 1933 the index number of employment was 61.6, showing an increase of 8.4 per cent in the average number employed in that year as compared with the average number employed in 1932. While this increase was relatively small, it is, nevertheless, highly significant because it represents a decided upward trend which was in marked contrast with the continuous downward trend during the three years, 1930, 1931 and 1932.

The present industrial depression, the beginning of which was marked by a general decline in industrial activity toward the close of the year 1929 in Massachusetts, as elsewhere throughout the United States, gained in intensity until the lowest point was reached in July, 1932. The year 1933 was the first year since the beginning of the depression in 1929 in which the trend line representing employment of wage-earners in all manufacturing industries, combined, in the State showed a general movement upward instead of downward. Although the depression had by no means run its course at the close of the year 1932, it was very evident, even at that time, that a marked improvement had occurred.

Certain other significant facts are disclosed by the data which appear in Table 1 and by the trend lines on the accompanying chart. Although the number of persons employed in the manufacturing industries in Massachusetts in 1933 was less by 38.4 per cent than the average number employed in 1913, the total amount paid in wages to those employed was greater by 1.6 per cent than the corresponding amount paid to those employed in 1913, and the average annual earnings of those employed in 1933 exceeded by 65.0 per cent the average annual earnings of those employed in 1913.

The *real* value, or purchasing power, of the average annual earnings of wage-earners employed in 1933, has shown no marked change, even during the present



depression, because of the large decrease in the cost of living since 1929. The *real* value of the average annual earnings in any year is determined by dividing the index number representing the average annual earnings, by the index number representing the cost of living. Although the cost of living in Massachusetts has fallen considerably from the peak in 1920, when the index number of the cost of living in Massachusetts, as computed by the Massachusetts Commission on the Necessaries of Life, stood at 195.3, as compared with the relative cost (100.0) in 1913 (the base year), the cost of living index number for 1933 was 123.5, or 23.5 per cent higher than in 1913. The index number in 1933 representing the *real* value, or purchasing power, of the average annual earnings of wage-earners employed in the manufacturing industries in Massachusetts was 133.6, or 33.6 per cent higher than the *real* value of the average annual earnings of those employed in 1913.

The depression, which at the close of December 1933, had continued for a period of more than four years, reached the lowest point in Massachusetts in July, 1932. During the latter half of the year, 1931, reductions in salaries and wages were beginning to be reported, and, from month to month thereafter, reductions were reported in rapidly increasing numbers, with the result that in 1933 reductions in rates of wages, seldom less than 10 per cent, and usually greater, had become effective quite generally in all lines of employment throughout the State. In 1929 the average annual earnings of wage-earners in the manufacturing industries in Massachusetts amounted to $1,246.39, while in 1933 the corresponding amount was $939.63 — a decrease of $306.76 or 24.6 per cent, due to decreases in rates of wages and part-time employment combined. During this period, 1929 to 1933, there was a decrease of 23.1 per cent in the cost of living, which was slightly less than the percentage decrease (24.6) in the average annual earnings of those *actually* employed. Those wage-earners, however, whose income was reduced in excess of 23.1 per cent, were forced to reduce their standard of living, notwithstanding this large decrease in the cost of living.

In the foregoing paragraphs reference has been made to employment and earnings of wage-earners in the *manufacturing* industries, considered as one general group. Later in this report consideration in some detail will be given to the fluctuations in employment and earnings of wage-earners in the principal manufacturing industries, separately, and in other important fields of employment. While it is true that there have been marked reductions in the numbers employed and their earning power in nearly all lines of business during the past four years, all have not been affected to the same extent. The building and construction industry appears to have been affected more seriously than other industries or fields of employment, notwithstanding earnest efforts which have been made to stimulate activity by the promotion of federal, state, county and municipal building and highway projects. Of the principal manufacturing industries, the textile and boot and shoe industries, and the manufacture of machinery ranked next to the building and construction industry among those industries most seriously affected. Wholesale trade and retail trade, which are directly affected by the depleted purchasing power of consumers, of whom wage-earners form a very large percentage, may be mentioned as the next in order. Public utilities, office employment and agriculture were affected to a less extent. The numbers employed in municipalities were not generally reduced until the close of 1932, but in many of the cities and towns salaries were reduced in most cases by ten per cent or more, either by direct order or by voluntary contributions of employees.

Labor's Share in Production, 1913–1932

In order to determine whether or not the wage-earners' share of the income from production has decreased in recent years as a result of the increased use of machinery in the manufacturing industries and a consequent increase in the volume of products manufactured per employee, the records for a period of 20 years (1913–1932) have been assembled and computations have been made showing the percentages which the amount paid in wages constituted of the value of goods produced and of the value added by manufacturing processes. For each of the years, 1913–1932, inclusive, the following basic data, obtained in connection with the Annual Census of Manufactures in Massachusetts, are presented in Table 2: amount of wages paid during the year; value of the products; and value of stock and materials used. The value added by manufacture, also shown in the table, is the difference between the value of products and the value of stock and materials used, and is the increment in value resulting from the joint use of capital and labor. The percentage which wages constituted of the value of products is derived by dividing the amount of wages paid during the year by the value of products during that year, and the percentage which wages constituted of the value added by manufacture is derived by dividing the amount of wages paid during the year by the value added by manufacture during that year.

On reference to the percentages which wages constituted of the value of products (Table 2, Column e), it will be observed that while there was some fluctuation in these percentages during the period 1913 to 1932, no marked increase or decrease

Table 2. — Percentages Which Wages Constitute of Value of Products and Value Added by Manufacture in Massachusetts, 1913–1932

(Source — Annual Statistics of Manufactures in Massachusetts)

Years	Amount of Wages Paid During the Year (000 omitted)	Value of Products (000 omitted)	Value of Stock and Materials Used (000 omitted)	Value Added by Manufacture (000 omitted)	Percentage Which Wages Constitute of —	
					Value of Products	Value Added by Manufacture
	a	b	c	d	e	f
1913	$351,300	$1,658,729	$961,778	$696,951	21.2	50.4
1914	341,310	1,641,373	931,384	709,989	20.8	48.1
1915	346,243	1,692,445	959,662	732,783	20.5	47.3
1916	447,958	2,349,933	1,354,433	995,500	19.1	45.0
1917	537,145	3,020,558	1,782,440	1,238,118	17.8	43.4
1918	679,401	3,851,346	2,249,823	1,601,523	17.6	42.4
1919	766,623	4,011,182	2,260,713	1,750,469	19.1	43.8
1920	891,177	4,370,277	2,489,237	1,881,040	20.4	47.4
1921	641,361	2,849,414	1,441,033	1,408,381	22.5	45.5
1922	678,074	3,002,626	1,512,510	1,490,116	22.6	45.5
1923	799,363	3,570,543	1,835,218	1,735,325	22.4	46.1
1924	711,812	3,126,137	1,629,342	1,496,795	22.8	47.6
1925	716,156	3,426,617	1,794,643	1,631,974	20.9	43.9
1926	738,209	3,419,815	1,790,611	1,629,204	21.6	45.3
1927	705,930	3,317,852	1,678,812	1,639,040	21.3	43.1
1928	670,063	3,224,228	1,663,156	1,561,072	20.8	42.9
1929	694,805	3,392,162	1,681,433	1,710,729	20.5	40.6
1930	573,838	2,676,387	1,333,317	1,343,070	21.4	42.7
1931	474,189	2,157,450	1,015,094	1,142,356	22.0	41.5
1932	334,359	1,521,753	718,348	803,405	22.0	41.5

in the wage-earners' share of the value of products over the long period of time has occurred. The lowest percentage was 17.6 in 1918 and the highest percentage was 22.8 in 1924. The average for the entire period of 20 years was 20.9; for the first 10 years the average was 20.2; and for the last 10 years it was 21.6.

The percentages which wages constituted of the value added by manufacture (Table 2, column f) also fluctuated from year to year. The highest percentage (50.4) was in 1913, the year just prior to the beginning of the World War, and the lowest percentage (40.6) was in 1929, a year of rather pronounced industrial activity. The average of the percentages for the 20 years was 44.7; for the first 10 years the average of the percentages was 45.9; and for the last 10 years the average was 43.5.

As noted, above, the highest percentage was 50.4 in 1913. In Table 2, basic information and percentages are not given for years prior to 1913, but in order to determine whether the percentage (50.4) for 1913 was one of a series of similarly high percentages for prior years, the data for the three years, 1899, 1904, and 1909, were examined and it was found that the percentages which wages constituted of the value added by manufacture were: 47.7 in 1899; 46.7 in 1904; and 45.6 in 1909, indicating that the percentage, 50.4, was exceptionally high.

The information above given relates to all manufacturing industries in Massachusetts, considered as a combined group. While it is evident that there was some fluctuation from year to year in the share of value of products and of the value added which the wage-earner received as compensation for his labor, the results of this inquiry do not show that in either respect his proportionate share during the two decades changed sufficiently to justify any definite conclusion as to any material change in his economic status. A further inquiry with reference to individual industries, particularly those in which there has been a general replacement of hand labor by machinery, might show very different results.

Statistics of Labor

The statistics of labor collected by the Division of Statistics are published either in print as "Labor Bulletins", or as "press announcements" in mimeographed form. The press announcements present in detail the results of the regular monthly surveys and of special inquiries, and are issued in order that information of current

interest may become immediately available. Summaries of the results of the monthly surveys and special inquiries are published in the Annual Report of the Division of Statistics which forms a part of the Annual Report of the Department.

Labor Bulletins

Labor Bulletin No. 167. Annual Directory of Labor Organizations in Massachusetts, 1933. This directory contains, as in previous editions, the name, location, time, and place of meetings and the name and address of the secretary and business agent of each labor organization having its headquarters in Massachusetts, together with a list of all the national and international labor organizations having one or more affiliated local unions in the United States, and the names and addresses of their respective secretaries, insofar as these items could be ascertained.

The number of organizations listed in this directory was 1,517, of which 135 were national and international organizations, 64 were state and district councils, 95 were central labor unions and councils, and 1,223 were local unions.

Labor Bulletin No. 168. Time Rates of Wages and Hours of Labor in Massachusetts, 1933. This is the twenty-fourth of a series of annual reports of a similar nature, the first of which was issued by the former Bureau of Statistics in 1910. Nearly all of the information published in the earlier reports of this series was obtained from officials of labor organizations, and the reports for each of the years, 1913 to 1923, inclusive, were published under the title, "Union Scale of Wages and Hours of Labor in Massachusetts." From year to year the additional information obtained from employers has been included and, beginning with the report of 1924, the reports have been issued under the more appropriate title "Time Rates of Wages and Hours of Labor in Massachusetts."

The information obtained from officials of local trade unions relates to basic rates and hours of labor, the terms of which in most instances are definitely expressed in joint agreements between employers and employees. These data are presented by industries, trades, and occupations and by municipalities represented. By changing the method of presentation of certain classes of information, it was possible to reduce the number of pages in this report without omitting any details of importance. As in former years, data with reference to union rates of wages and hours of labor in Boston, Fall River, Springfield, and Worcester were furnished to the United States Bureau of Labor Statistics for publication in its annual report covering a large number of cities in the United States.

Additional information, obtained from official records of employers, has reference to rates of wages and hours of labor affecting employees in Massachusetts who are engaged in certain classes of municipal service, and by street and electric railway companies, passenger bus companies, and in telephone service.

Monthly Surveys and Press Notices

Introductory. The scope of the "Monthly Surveys" of employment and wage-earners in Massachusetts has been extended from a small beginning in September, 1922, when reports were received from only 202 manufacturing establishments in which 120,804 wage-earners were employed, to a total of 8,027 establishments covered by reports received in December, 1933, representing all important fields of employment in the State and covering 378,178 wage-earners.

In this branch of its work, the Division of Statistics co-operates with the United States Bureau of Labor Statistics, thereby avoiding duplication of work in the collection of pay roll data by the two governmental agencies. The federal bureau has granted the franking privilege in connection with a large part of this work, and the postage expense on account of the remainder is relatively small.

In 1931 the surveys were extended to include all important fields of employment in Massachusetts not previously canvassed. In 1932 and 1933 attention was given to improving the list of representative reporting agencies and to increasing the coverage, so as to secure, wherever possible, a representation of at least 40 per cent of the total number of wage-earners employed in each important industrial and business group. For several groups, such as public utilities (steam railroads, street and electric railways, passenger bus companies, gas and electric companies) and highway construction, a comparatively small number of reports furnishes a representation of 90 per cent or more. On the other hand, in some lines of employment it is not feasible to attempt to secure a 40 per cent representation, or "sample",

because the number of persons employed by individual employers in most instances is so small that a very large number of reports would be required to furnish a 40 per cent representation; in agriculture, for example, there are very few farms, market gardens, dairies, etc., where as many as five persons are employed throughout the year in agricultural labor, and consequently the representation thus far secured is only about five per cent.

The questionnaires used in connection with these surveys are simple in form and so devised that the information called for can readily be entered from the employers' pay rolls. Information relative to manufactures, wholesale and retail, office employment, agriculture, and miscellaneous employment is obtained on a "six-month form," which provides spaces for entries for the pay roll period, including the 15th of the month, for each of six months. This form is returned to the employers each month for the addition of pay roll data for the next pay roll period. For public utilities three one-month forms are used, each calling for certain details relating to the particular class of public utility to which it applies. For building and highway construction a one-month form has been so devised that contractors may furnish information by projects and their locations, which usually vary from month to month. The form used in obtaining pay roll data from municipalities provides for reports by departments, separately, because in some municipalities there is no central office where pay roll records for all departments are on file; this form also provides for a separate reporting of pay rolls for two classes of employees.

With the questionnaire there is sent to reporting employers each month a mimeographed press notice summarizing the returns for the previous pay roll period, in order that they may compare the trends of employment and wages in their own plants with the corresponding trends for all reporting establishments in the same, or closely allied industry or business in which they are engaged. These press notices are also sent to a large number of organizations and individuals who have requested them.

The results of the survey are made public each month in the form of mimeographed press announcements,[1] in which data are presented showing the number of establishments reporting, the number of wage-earners employed, and the earnings of wage-earners according to the pay roll of the reporting establishments, and certain other particulars for the week including or ending nearest the fifteenth of the current month and the next preceding month. Copies of the press announcements are issued to the press and to a large number of organizations and individuals who have requested that such announcements be sent regularly as issued. Copies are also mailed, with the questionnaire for the next month, to all concerns included in the lists of those reporting, in order that the employers may compare the trends of employment and wages in their own plants with the corresponding trends for all other reporting establishments in the same industry which they represent.

Index numbers of employment and earnings of wage-earners have been computed for eight major industrial groups and for 29 sub-divisions. These appear later in this report, in connection with the discussion relative to the several principal employment groups. In computing these index numbers it has not yet been possible to adopt a uniform base period for all of the series because of the comparatively recent extension of the surveys to certain classes of employment, for which data are not available for more than two full years. The data relative to manufactures are available for each month during a period of ten years, and the three years, 1925, 1926, and 1927, were selected as a base period in computing the series of index numbers. For building construction, the year 1928 was taken as the base year, and for public utilities the base year is 1930. For all other series the single month (September, 1931) was adopted, temporarily, as the base month. In the course of a year or two, the several series of index numbers will have covered a sufficient number of years to justify the adoption of a uniform base period to be used in computing each of the series of index numbers, and it should also then be possible to compute a "composite index," covering all principal lines of employment in the Commonwealth.

[1] The press announcements issued each month relate to the following:

Manufactures	Public utilities	General summary
Wholesale and retail trade	Municipal employment	Summary — Eleven cities
Building construction	Agriculture	
Highway construction	Office and miscellaneous	

Table 3. — Coverage of Monthly Surveys of Employment and Earnings of Wage-Earners in Representative Establishments in Massachusetts, December, 1933: By Industrial Groups

Industrial Groups	Survey First Undertaken		Number of Establishments Reporting	Number of Wage-Earners Covered	Total Amount of Wages Paid to Wage-Earners Covered (one week)	Approximate Size of Sample Percentage [1]
	Month	Year				
Manufacturing	*Sept.*	*1922*	*1,137*	*188,018*	*$3,437,538*	*40.0*
Wholesale and Retail Trade	*Nov.*	*1929*	*4,877*	*90,309*	*1,799,685*	*40.0*
Wholesale trade	Aug.	1931 [2]	711	15,317	394,507	30.0
Retail trade	Aug.	1931 [2]	4,166	74,992	1,405,178	45.0
Public Utilities	*Jan.*	*1929*	*131*	*45,199*	*1,272,862*	*95.0*
Steam railroads	Jan.	1929	6	20,756	547,877	100.0
Street and electric railways	Jan.	1929	14	9,829	317,853	95.0
Passenger bus companies	Apr.	1931	25	1,397	35,254	90.0
Gas and electric companies	Jan.	1929	86	13,217	371,878	95.0
Construction	*Apr.*	*1927*	*787*	*5,902*	*128,320*	*35.0*
Building construction	Apr.	1927 [2]	703	4,011	91,794	25.0
Highway construction	June	1931 [2]	84	1,891	36,526	90.0
Municipal Employment	*Apr.*	*1931*	*94*	*21,159*	*523,294*	*70.0*
Agriculture	*Sept.*	*1931*	*97*	*1,057*	*17,884*	*5.0*
Office and Miscellaneous Employment	*March*	*1931*	*924*	*30,173*	*632,547*	*25.0*
Amusement and recreation	March	1931	138	2,961	66,330	50.0
Banks and trust companies	March	1931	176	3,245	92,345	40.0
Dyers and cleansers	March	1932	80	1,793	27,392	75.0
Hospitals	March	1931	32	3,479	50,941	25.0
Hotels and hotel restaurants	March	1931	81	5,061	69,761	35.0
Insurance companies and agencies	March	1931	97	4,083	124,083	30.0
Laundries	March	1931	114	3,797	61,429	30.0
Schools and colleges	March	1931	24	1,304	29,959	50.0
Trucking and handling	March	1931	107	3,080	72,975	25.0
Miscellaneous offices	March	1931	75	1,370	37,332	15.0
Totals	–	–	8,047	381,817	$7,812,180	–
Less duplication [3]	–	–	20	3,639	99,362	–
All Industrial Groups Combined	–	–	*8,027*	*378,178*	*$7,712,818*	*80.0*

[1] Based on number reported as "gainfully employed" — Federal Census, 1930.
[2] Group sub-divided beginning with returns for the date shown.
[3] Certain public utility companies are also included under "Manufacturing."

In Table 3 data are presented showing, for each industrial group covered by the survey, the year and month in which the survey was first undertaken, and (as of December, 1933), the number of establishments and number of wage-earners covered, the total amount paid in wages (in one week) to the wage-earners covered, and the approximate size of the sample, expressed as percentages of the total number of persons "gainfully employed" in the respective industrial groups, according to the Federal Census of 1930.

A truly representative list of reporting establishments should include large, medium-sized and small establishments in proper proportions. While it is difficult to meet this requirement without disturbing the representation by industries and municipalities, yet it has been possible, in a fair measure, to accomplish this purpose as indicated by the percentage distribution of wage-earners by size of establishments, as shown in Table 4. Of the total number of wage-earners covered by the returns in December, 1933, 29.9 per cent were in establishments in which less than 100 were employed and 29.3 per cent were in establishments in which 1,000 or more were employed. There was an under-representation in the other three groups when considered separately but considered as a single intermediate group (100–1,000), the combined representation was 40.8 per cent of the total. In classifying establishments by number of wage-earners employed it was not feasible to include building and highway construction and municipal employment in the tabulation.

Table 4. — Number of Concerns Reporting and Number of Wage-Earners Represented in Monthly Survey of Employment and Earnings in December, 1933 [1]

Classification by Number of Wage-Earners	Numbers		Percentages of Total	
	Units [2]	Wage-Earners	Units [2]	Wage-Earners
Less than 100	6,564	105,739	91.8	29.9
100 — 250	339	51,448	4.7	14.6
250 — 500	132	45,725	1.8	12.9
500 — 1000	69	47,102	1.0	13.3
1000 and over	47	103,654	0.7	29.3
Totals	*7,151*	*353,668*	*100.0*	*100.0*

[1] Exclusive of building and highway construction and municipal employment for which a classification of employers by number of wage-earners could not readily be made.

[2] For the purposes of this tabulation the term "unit" is defined as a separate establishment in which wage-earners are employed. Each of the individual establishments controlled by a central organization was included in this tabulation as a "unit." All of the units of each chain store organization were included in the group within which the *average* number of wage-earners per unit fell; for example, if the average number of wage-earners per unit in a chain store organization was less than 100, all of the units of that organization were included in the group "Less than 100 wage-earners."

Manufactures.—Approximately 1,150 manufacturing establishments are canvassed each month and the returns cover about 13 per cent of the total number of such establishments and about 40 per cent of the total number of wage-earners employed in manufacturing in the State. Efforts are made to maintain a list of reporting establishments which shall be truly representative, by industries, by municipalities, and by industries within the principal municipalities.

By means of this survey of representative manufacturing establishments it is possible to determine, shortly following the close of each month, the trend of employment and pay rolls during that month in each of the principal manufacturing industries and cities in the State and also to compute, approximately, in January of each year the average number of wage-earners employed and the total amount of wages distributed during the preceding year. For example, in January, 1933, such computations for the year 1932 were made, and when the results of the exhaustive annual census of manufactures for the year 1932 became available late in 1933 it was found that, according to the annual census returns, the average number employed in all manufacturing establishments in the State varied less than one-half of one per cent, and the corresponding amount paid in wages varied only 2.3 per cent, respectively, from the earlier estimates based on the monthly survey returns. In each case, the estimates were slightly less than the actual census totals, indicating that there was a small "downward bias" in the monthly survey data. In order to correct this downward bias the series of index numbers are adjusted each year in conformity with the latest census returns and such changes

are made from time to time in the list of reporting establishments as may be necessary to restore to the list its representative character. It is not possible to maintain an absolutely identical list of reporting establishments for a long period of time, because in the course of a year a few of those reporting either discontinue operations or remove from the State. In such cases others in the same industry and municipality are added to the list to replace those which cease to report. Because of unavoidable changes in the list of reporting establishments, the index numbers are computed by the "link-relative" method.

The results of the monthly survey of manufactures are presented in monthly press notices showing, for 37 principal industries and 26 leading industrial cities, the following data: number of establishments reporting; number of wage-earners normally employed, the number actually employed, and employed on full time; the average weekly earnings of those employed during the pay roll week including the 15th of the current and the next preceding month; and the average weekly earnings for each pay roll period. In addition to the text and detailed tables, there are also included in each issue, a graphic chart, showing the trend of employment and of the total amount of wages paid in all manufacturing establishments combined, a summary table showing percentage changes during the current month for each of the ten leading industries and for each of eleven of the leading cities; and index numbers of employment for all industries combined and for each of 20 leading industries.

Space does not permit of a full presentation in this report of the result of the monthly surveys, but three series of index numbers included in this section of the report show the trend of employment of wage-earners and amounts paid in wages in all manufacturing industries, as a group, and in each of the 20 leading industries in the State, by months, in 1933, with averages [1] for each of the years 1925–1933, inclusive, and also the trend of employment in each of the 14 leading industrial cities in 1932 and 1933. The index numbers of employment for each of the years 1925–1931, inclusive, were derived from the annual census data, and the index numbers for 1932 and 1933 were derived from monthly survey data. As soon as the exhaustive census data become available each year the index numbers based thereon are substituted for the index numbers derived from the representative returns. The index numbers representing amounts paid in wages were all computed from the monthly survey data because the annual census schedule does not provide for the reporting, by months, of the pay roll figures.

A series of charts, showing, graphically, the trends of employment and amount paid in wages to wage-earners in all manufacturing industries, combined, and in each of the 20 leading industries, by months, during the years 1925–1933, inclusive, and the trends of employment in the 14 leading industrial cities in 1931, 1932, and 1933, by months, appear in the charts [2] accompanying this report.

The index numbers representing the trend of employment in all manufacturing industries combined and in the 20 principal industries are presented in Table 5.

[1] The index numbers, *by months*, for the years 1925 to 1931 were published in the Annual Report of the Division for the year ending November 30, 1931, and are, therefore, not repeated here.

[2] See Charts, pages 80–88, Plates 1–9.

Table 5. — Index Numbers of Employment in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: By Months, for the Years 1925–1933, inclusive

Base: — 100.0 = Average Number of Wage-earners Employed in the Three Year Period — 1925, 1926 and 1927.

Sources. — For base period, and for 1928, 1929, 1930, and 1931, the Annual Census of Manufactures: for 1932 and 1933, the Monthly Survey of Representative Manufacturing Establishments.

Years and Months	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus, and Supplies	Foundry and Machine-shop Products	Printing and Publishing
Number of Wage-earners [1]	*590,616*	*92,841*	*57,710*	*53,526*	*25,908*	*19,953*	*14,442*
1925	100.1	103.6	99.5	102.5	96.7	97.9	98.5
1926	102.0	98.5	103.5	102.1	107.7	102.3	101.9
1927	97.9	97.9	97.0	95.4	95.6	99.7	99.6
1928	91.6	70.2	96.1	84.5	95.7	99.2	101.3
1929	94.3	76.3	95.5	85.3	111.3	106.5	105.2
1930	81.5	57.9	85.1	65.6	93.5	92.7	104.2
1931	73.5	50.6	82.6	69.5	77.4	73.9	91.6
1932	60.6	36.5	83.8	57.8	52.5	50.3	83.9
1933	65.7	48.7	79.1	81.6	51.9	46.8	80.5
1933							
January	58.1	42.1	75.4	62.6	44.6	41.1	80.8
February	60.3	42.8	87.8	71.1	44.2	41.5	81.1
March	56.2	36.9	81.6	57.0	41.3	40.2	79.1
April	56.4	36.9	86.5	58.6	43.4	39.3	78.8
May	58.5	37.8	82.8	74.0	44.3	42.8	77.3
June	62.9	46.2	78.2	88.4	47.8	44.7	77.4
July	69.0	55.0	87.7	102.5	48.1	46.3	76.9
August	73.2	55.2	79.3	109.3	55.1	49.5	78.0
September	75.1	57.8	79.2	98.9	62.1	54.5	83.1
October	76.5	60.3	80.9	95.1	67.6	54.4	84.4
November	72.9	58.2	69.2	82.1	65.9	53.6	84.1
December	69.1	55.2	61.0	79.4	58.2	53.8	85.0

Years and Months	Dyeing and Finishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires, and Inner Tubes	Leather-Tanned, Curried and Finished	Hosiery and Knit Goods
Number of Wage-earners [1]	*13,823*	*12,829*	*12,773*	*12,081*	*10,516*	*10,482*	*10,100*
1925	100.4	100.7	107.2	94.3	102.1	99.6	104.5
1926	99.6	102.9	98.8	105.7	99.3	97.7	99.9
1927	100.0	96.4	94.0	100.0	98.6	102.7	95.6
1928	98.6	98.2	81.4	105.2	100.3	104.7	90.0
1929	104.5	96.4	83.0	92.4	92.9	102.2	87.3
1930	94.6	90.4	67.3	68.0	82.3	85.4	80.5
1931	94.5	83.0	58.9	52.0	64.0	82.6	75.6
1932	86.8	81.3	43.1	42.3	56.6	74.3	68.9
1933	92.7	80.9	59.1	48.9	64.8	92.0	73.8
1933							
January	87.9	79.7	43.0	43.3	52.8	76.1	64.5
February	89.9	78.1	41.6	39.5	51.2	82.3	64.6
March	86.8	77.9	40.6	32.7	49.8	81.3	62.6
April	84.2	76.5	40.0	34.6	41.2	64.2	63.3
May	76.4	78.7	42.8	35.1	51.8	87.1	62.9
June	82.1	79.1	48.9	37.9	66.1	99.3	70.3
July	94.8	83.2	60.2	47.0	74.8	108.8	80.7
August	106.3	84.9	74.0	57.5	86.4	112.8	93.2
September	98.0	84.4	79.1	62.0	84.5	105.0	86.6
October	102.1	82.6	81.7	63.3	80.3	101.9	85.7
November	103.0	82.3	80.5	66.4	72.4	94.5	78.0
December	100.9	83.0	76.9	67.0	66.5	90.7	73.6

[1] Average number of wage-earners employed in 1925, 1926 and 1927 = 100.

Years and Months	Clothing, Men's	Bread and Other Bakery Products	Confectionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Goods[2]	Clothing, Women's
Number of Wage-earners[1]	*9,543*	*8,533*	*8,123*	*8,117*	*7,520*	*6,804*	*6,225*
1925	93.3	98.8	93.9	96.5	92.9	95.5	88.1
1926	102.8	101.9	103.1	104.0	103.8	96.4	100.1
1927	104.0	99.3	103.1	99.5	103.2	108.1	111.9
1928	102.2	102.8	92.2	101.3	101.3	99.7	115.0
1929	100.0	122.0	92.0	105.9	101.8	108.6	121.8
1930	101.1	117.7	80.5	90.6	92.0	83.5	122.2
1931	99.5	118.1	73.2	75.8	85.9	102.0[2]	135.7
1932	104.3	110.3	59.2	57.4	76.8	73.7[2]	110.0
1933	131.8	111.4	60.4	61.5	74.9	108.4[2]	97.2
1933							
January	96.6	104.6	56.0	52.8	71.0	79.7	92.3
February	113.3	106.7	53.2	53.5	78.1	82.1	100.4
March	110.5	107.8	50.4	51.4	68.2	78.4	90.4
April	110.2	109.3	51.3	52.7	70.7	76.3	100.2
May	103.6	108.5	49.1	55.1	71.2	90.1	106.0
June	132.9	111.5	50.5	58.8	74.9	104.7	103.0
July	151.4	111.6	52.2	62.9	87.1	123.8	85.5
August	149.5	111.8	58.9	65.6	88.0	141.4	96.5
September	157.9	114.8	65.4	72.1	80.1	144.6	112.2
October	164.2	116.8	80.2	75.1	74.4	137.8	110.3
November	157.1	117.0	84.7	70.1	66.3	128.1	88.3
December	133.9	116.1	73.4	67.8	68.5	113.8	81.0

[1] Average number of wage-earners employed in 1925, 1926 and 1927 = 100.

[2] Index numbers beginning with 1931 are not directly comparable with those for earlier years because one large company was included under woolen and worsted goods through 1930, but thereafter was included under silk and rayon goods, which became the predominant products.

For all manufacturing industries combined, the index number representing employment of wage-earners increased from 48.4 in July, 1932, the lowest point recorded during the depression, to 76.5 in October, 1933, an increase of 28.1 points, or 58.1 per cent. In February, 1933, there was an increase in the index number of employment to 60.3 from 58.1 in January. A decrease in March to 56.2 brought the index number below what it was in January, but thereafter for seven successive months the trend was gradually upward until the peak for the year (76.5) was reached in October. The decrease in employment in November and December offset the gain made in the three months August, September, and October. Almost invariably, there is decreased employment towards the close of the year, and the years of "depression" seemingly have the same characteristics in this respect as do normal years. The average of the index numbers for the year 1933 was 65.7, showing a gain of 8.4 per cent when compared with the average (60.6) for the year 1932.

Of the various important manufacturing industries in the State the manufacture of cotton goods continued to be one of the industries most adversely affected by business conditions. The January index number of employment was 42.1; for February it was 42.8; and for March and April 36.9; there was a slight improvement in May, to 37.8; a large gain was noted in June and July, and August was slightly better than July; September showed a fair gain, as did October which was the peak month of the year, for which month the index number was 60.3. It is interesting to note that the peak month in 1932 was February, with an index number of 50.1. Decreased employment in both November and December, 1933, brought the level of employment back to where it was in August. The average for the year was 48.7, as compared with 36.5 in 1932.

Of the major industries, the boot and shoe industry appears to have been the least adversely affected in 1932. The average of the monthly index numbers in 1933 was 79.1, which was somewhat below the corresponding average (83.8) for 1932. This was, quite probably, due to the extended labor controversy in the shoe factories in Brockton, which is one of the leading cities in the manufacture of men's shoes in Massachusetts. The usual two busy seasons were experienced, with the peak months February and July. December, with an index of 61.0, was the outstandingly low month, as it was in 1932.

The woolen and worsted goods industry in May showed a decided increase in employment over the first four months in 1933, followed by further gains in June, July, and August. The level of employment in August is represented by the index number 109.3, indicating that employment in August was 9.3 per cent better

than normal for the industry. Thereafter, however, employment decreased until the low point was reached in December (79.4). The average for the year was 81.6, a gain of 41.2 per cent when compared with the average for the year 1932 (57.8).

The trend of employment in the manufacture of electrical machinery, apparatus, and supplies (including radio apparatus) in 1933 showed tendencies almost exactly opposite to those noted in 1932, in which year the months of greatest employment were the first three. In 1933 the months of greatest employment were the last four, and the peak employment for the year 1933 occurred in October, represented by 67.6. The average for 1933 was 51.9, as compared with 52.5 for 1932.

In the manufacture of foundry and machine shop products employment in 1933 averaged slightly less than in 1932, and the industry had the same tendencies as those displayed by the electrical machinery industry; that is, employment showed little change during the first part of the year with slightly greater activity towards the close. The level of employment varied less than a full point during the last four months. The average for the year 1933 was 46.8, as compared with 50.3 in 1932.

The five major industries discussed above normally provide employment for more than one-half of the total number of wage-earners employed in all manufacturing industries in the State. For the other industries for which index numbers are presented in Table 5, the averages of the monthly index numbers for the year 1933, ranged in order from highest to lowest, were as follows: men's clothing (131.8); bread and other bakery products (111.4); silk and rayon manufactures (108.4); women's clothing (97.2); dyeing and finishing textiles (92.7); leather, tanned, curried, and finished (92.0); paper and wood pulp (80.9); printing and publishing (80.5); boot and shoe cut stock and findings (74.9); hosiery and knit goods (73.8); rubber goods, tires, and inner tubes (64.8); furniture (61.5); confectionery (60.4); textile machinery and parts (59.1); and rubber footwear (48.9).

For three of the 20 leading manufacturing industries in Massachusetts, the average of the monthly index numbers of employment in 1933 exceeded 100.0[1]. In the manufacture of men's clothing the high average (131.8) was a result of increased activity during the last seven months of the year. The manufacture of bread and other bakery products in Massachusetts has become increasingly important in recent years and even during the depression the production of such products, which are "necessaries of life" has been continuously maintained at a high level. In the manufacture of silk and rayon goods production was at a high level, particularly during the last seven months in 1933.

Index numbers representing the total amount paid in wages to wage-earners employed in all manufacturing industries, combined, and in each of the 20 principal industries during the years, 1925–1933, inclusive, are presented in Table 6.

The total amount paid in wages to the wage-earners employed in all industries combined, in 1933, was less by 51.3 per cent than the average for the three years 1925–1927, taken as a base period, but the index number (48.7) in 1933 exceeded by 3.1 points, or 6.8 per cent, the corresponding index number (45.6) for the year 1932. Although there was an increase of only 6.8 per cent in the amount of the pay roll in 1933 over 1932, the monthly trends for the two years were quite dissimilar. In 1932 the general trend was downward, and the lowest point for the year (35.8) was reached in July, followed by a gradual recovery to October (47.3). Thereafter the amount paid in wages decreased each month, except for a slight gain in February, to the low point (37.2) reached in March, 1933, followed by a gradual but continuous improvement, until the peak for the year 1933 (59.4) was reached in September. In October the index number (59.4) was the same as in September. The usual seasonal decreases occurred in November and December. It is particularly significant, however, that the index number for December, 1933, was 52.8, or 26.3 per cent higher than the corresponding index number (41.8) for December, 1932.

The index numbers representing the amounts paid in wages in 1933 in the 20 leading industries, arranged in order from the highest to the lowest, were as follows: bread and other bakery products, 94.1; men's clothing, 91.4; silk and rayon manufactures, 78.9; leather (tanned, curried, and finished), 75.2; dyeing and finishing textiles, 71.8; printing and publishing, book and job, and newspaper,

[1] *See* Table 5, pages 47 and 48.

Table 6. — Index Numbers of Total Amount Paid in Wages in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: for the Years 1925–1933, inclusive, and by Months in 1933

Base — 100.0 = Average Amount Paid in Wages to Wage-earners Employed in the Three Year Period 1925–1926–1927.

Source — Monthly Survey of Representative Manufacturing Establishments.

Years and Months	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus, and Supplies	Foundry and Machine-shop Products	Printing and Publishing
1925	99.5	102.6	98.5	103.4	94.8	99.3	95.9
1926	101.8	97.0	104.4	101.0	108.8	105.2	101.9
1927	98.7	100.4	97.1	95.6	96.4	95.5	102.2
1928	92.9	68.3	95.0	83.5	99.3	96.8	104.1
1929	97.4	76.2	94.5	88.3	120.8	107.5	109.0
1930	78.6	54.6	74.0	63.0	87.8	87.9	106.8
1931	65.3	44.3	64.6	67.9	59.3	58.9	91.3
1932	45.6	25.4	56.0	44.7	33.6	32.2	77.0
1933	48.7	35.4	52.6	63.7	32.4	31.0	70.0
1933							
January	39.7	27.1	42.6	48.5	24.6	26.3	70.4
February	42.3	27.6	56.7	55.4	24.9	26.6	71.2
March	37.2	22.6	50.0	36.6	22.0	23.5	66.8
April	38.0	24.5	57.3	39.6	23.0	22.6	67.1
May	42.2	24.9	58.5	54.2	24.3	26.7	66.9
June	47.0	32.5	52.2	72.4	27.8	29.0	66.6
July	53.0	39.8	62.4	85.7	30.9	31.5	65.4
August	57.3	45.0	59.5	91.2	36.7	34.2	65.1
September	59.4	47.5	58.8	82.1	42.2	38.2	71.5
October	59.4	47.5	55.1	75.5	46.6	37.5	73.3
November	55.7	44.9	42.7	62.5	46.2	38.2	74.3
December	52.8	41.2	35.3	60.9	39.1	37.7	76.0

Years and Months	Dyeing and Finishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires and Inner Tubes	Leather-Tanned, Curried and Finished	Hosiery and Knit Goods
1925	99.8	99.6	111.3	94.6	103.0	97.1	102.9
1926	98.6	104.1	96.6	103.2	97.4	99.0	99.3
1927	101.6	96.3	92.1	102.2	99.6	103.9	97.8
1928	99.2	101.0	77.1	104.6	100.0	106.1	95.8
1929	106.8	99.9	87.0	91.8	91.2	106.4	99.3
1930	91.7	87.6	61.7	65.8	75.2	83.0	85.4
1931	91.4	68.2	50.3	42.4	54.4	74.3	74.4
1932	65.6	54.4	29.3	31.5	42.6	59.5	59.7
1933	71.8	52.6	48.4	35.8	45.8	75.2	59.8
1933							
January	60.3	47.0	30.0	27.5	36.5	55.7	46.1
February	69.0	45.8	27.3	25.9	33.8	64.5	46.2
March	62.7	45.8	24.8	19.4	28.2	61.1	48.0
April	59.2	43.5	22.3	22.6	25.5	47.4	49.4
May	58.1	49.5	29.1	25.1	38.5	69.5	45.6
June	70.4	52.7	44.3	27.3	52.7	85.5	55.6
July	79.8	59.2	55.6	37.9	57.4	99.0	64.2
August	86.8	60.8	65.1	43.7	62.4	95.8	80.7
September	77.0	59.5	70.6	47.2	60.1	87.2	77.3
October	81.0	56.3	72.7	49.1	56.4	83.6	73.2
November	78.9	55.0	71.6	51.3	50.0	78.0	65.2
December	78.0	55.7	67.0	52.3	48.6	74.7	65.9

Years and Months	Clothing, Men's	Bread and Other Bakery Products	Confectionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Goods	Clothing, Women's
1925	92.3	96.5	91.4	94.0	91.5	95.8	88.0
1926	103.8	103.5	102.8	103.7	103.9	96.5	99.0
1927	103.9	100.0	105.8	102.3	104.6	107.7	113.0
1928	98.3	101.2	93.3	104.4	101.4	94.4	115.8
1929	95.1	119.9	90.9	109.9	103.9	104.0	120.0
1930	89.1	115.8	78.9	89.9	87.9	70.4	119.3
1931	78.5	115.8	64.1	65.7	78.4	79.4	120.8
1932	72.9	98.3	45.3	40.8	62.9	49.7	78.3
1933	91.4	94.1	44.5	41.0	58.3	78.9	63.8
1933							
January	59.1	88.9	40.5	33.8	55.0	52.8	54.5
February	73.8	92.2	36.3	34.9	61.8	57.4	60.7
March	71.7	90.4	32.4	26.6	49.3	43.6	45.5
April	59.7	89.6	32.0	31.3	52.2	41.5	66.4
May	59.7	90.4	31.4	34.1	59.3	65.5	66.8
June	87.2	93.1	33.4	38.1	61.4	79.9	67.1
July	106.7	95.1	35.2	42.5	71.2	97.2	49.2
August	118.3	91.5	41.8	44.7	70.9	109.7	66.1
September	125.7	99.0	54.4	54.0	64.2	112.6	88.5
October	128.7	100.3	68.6	57.8	52.7	106.7	86.8
November	121.3	100.5	62.7	47.8	47.9	97.1	60.4
December	85.2	98.3	65.5	46.5	53.2	82.3	53.4

70.0; women's clothing, 63.8; woolen and worsted goods, 63.7; hosiery and knit goods, 59.8; boot and shoe cut stock and findings, 58.3; boots and shoes, 52.6; paper and wood pulp, 52.6; textile machinery and parts, 48.4; rubber goods, tires, and inner tubes, 45.8; confectionery, 44.5; furniture, 41.0; rubber footwear, 35.8; cotton goods, 35.4; electrical machinery, apparatus, and supplies, 32.4; and foundry and machine-shop products, 31.0. Of the 20 principal manufacturing industries, the bread and other bakery products industry and the manufacture of men's clothing suffered less reduction relatively in the total amount of wages paid, and four of the major industries, cotton goods; boots and shoes; electrical machinery, apparatus, and supplies; and foundry and machine shop products, were among those most seriously affected by the depression.

In several industries there was a remarkable improvement in wages paid, from the low point to the high point for the year. For example, the total amount of wages paid in the textile machinery industry increased from the low point, 22.3 in April to 72.7 in October; silk and rayon goods from 41.5 in April to 112.6 in September; and men's clothing, from 59.1 in January to 128.7 in October. In each of the 20 industries, the highest point for the year occurred in one of the last six months of the year.

The lowest points recorded for the several industries were in March or April, as follows: rubber footwear, 19.4 in March; electrical machinery, apparatus and supplies, 22.0 in March; textile machinery and parts, 22.3 in April; cotton goods, 22.6 in March; foundry and machine-shop products, 22.6 in April; and rubber goods, tires and inner tubes, 25.5 in April.

The earnings of employees are affected by the continuity of their employment by part-time employment, and by changes in wage rates. The average weekly earnings of wage-earners employed in all manufacturing industries combined and in each of twenty leading industries for each of the years, 1925 to 1933, and also by months in 1933, are presented in Table 7.

Not until May, 1933, did the average weekly earnings of wage-earners in the various manufacturing industries show any marked increases. These increases were a result, in part, of the adoption of industrial codes providing for increases in the minimum rates of wages and upward adjustments in wage scales, and a general improvement in employment. In some industries the averages for 1933, because of the exceptionally low earnings during the first five months of the year,, were less than the corresponding averages for 1932, and, for all industries combined, the average weekly earnings in 1933 were $17.88, or 2.0 per cent less than the average in 1932, but the average for each of the last six months in 1933 was above the average ($18.24) for 1932.

For the 20 principal manufacturing industries, arranged in order from the highest to the lowest, the average weekly earnings in 1933 were as follows: printing and publishing, $29.60; foundry and machine shop products, $24.18; textile machinery and parts, $22.34; leather, tanned, curried, and finished, $21.21; bread and other bakery products, $20.79; dyeing and finishing textiles, $18.47; furniture, $17.72; paper and wood pulp, $17.66; electrical machinery, apparatus and supplies, $16.69; boots and shoes, $16.45; rubber goods, tires and inner tubes, $16.30; boot and shoe cut stock and findings, $16.20; woolen and worsted goods, $15.33; silk and rayon goods, $15.03; rubber footwear, $15.15; men's clothing, $14.50; hosiery and knit goods, $14.03; women's clothing, $13.70; cotton goods, $13.51; and confectionery, $13.24. In this connection, it is of interest to note that in the industries in which a large proportion of the employees are men the average weekly earnings were decidedly greater than in those industries in which a large proportion of the employees are women.

The effect of the depression on the earnings of wage-earners is indicated by a comparison of the average weekly earnings in 1933, with the corresponding earnings during the base period 1925–1927. For all manufacturing industries combined, there was a decrease from $23.39, the average for 1925–1927, to $17.88 in 1933, or 23.6 per cent. For the 20 leading industries the corresponding decreases, expressed in percentages arranged from the lowest to the highest, were as follows: printing and publishing, 11.5; textile machinery and parts, 12.2; foundry and machine shop products, 16.0; dyeing and finishing textiles, 17.4; bread and other bakery products, 18.4; leather, tanned, curried, and finished, 18.7; confectionery,

21.7; hosiery and knit goods, 22.5; boot and shoe cut stock and findings, 26.2; boots and shoes, 26.2; men's clothing, 26.7; silk and rayon goods, 27.0; cotton goods, 27.1; paper and wood pulp, 27.6; woolen and worsted goods, 30.6; furniture, 31.2; rubber footwear, 32.8; rubber goods, 34.4; women's clothing, 36.7; and electrical machinery, apparatus and supplies, 37.5.

In 1933, there was an increase of 17.4 per cent in the average weekly earnings of wage-earners employed in the manufacture of textile machinery and parts over the corresponding average in 1932, which was the largest percentage increase reported in any of the 20 principal manufacturing industries, and in the manufacture of silk and rayon goods there was an increase of 6.1 per cent. Percentage decreases in 1933 as compared with 1932, in the average weekly earnings, exceeding five per cent, occurred in the following industries: clothing, women's, 7.3; furniture, 6.9; rubber goods, tires and inner tubes, 6.7; hosiery and knit goods, 6.6; printing and publishing, 5.7; bread and other bakery products, 5.2; and confectionery, 5.1.

Table 7. — Average Weekly Earnings in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: For the Years 1925–1933, inclusive, and by Months in 1933

Base — Average Weekly Earnings of Wage-earners Employed during the Three Years, 1925, 1926 and 1927.

Source: — Annual Census of Manufactures, 1925–1932, and Monthly Survey of Representative Manufacturing Establishments, 1933.

Years and Months	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus, and Supplies	Foundry and Machine-shop Products	Printing and Publishing
*Basic Weekly Earnings**	*$23.39*	*$18.52*	*$22.29*	*$22.08*	*$26.68*	*$28.78*	*$33.44*
1925	23.23	18.31	21.88	22.70	26.87	28.39	23.17
1926	23.51	18.64	22.62	21.75	26.91	28.98	33.16
1927	23.42	18.59	22.37	21.80	26.27	28.98	33.99
1928	23.76	18.01	22.08	21.99	26.29	29.49	34.86
1929	23.91	17.76	22.35	21.97	27.27	29.77	35.48
1930	22.86	16.90	19.85	21.44	25.31	28.61	34.51
1931	20.94	15.87	18.38	19.29	21.76	24.51	34.02
1932	18.24	13.41	16.33	15.23	17.32	23.66	31.38
1933	17.88	13.51	16.45	15.33	16.69	24.18	29.60
1933							
January	16.61	12.26	14.04	14.85	15.00	23.59	29.84
February	17.05	12.18	16.05	15.55	15.36	23.55	30.08
March	16.10	11.63	15.23	12.81	14.51	21.53	28.95
April	16.39	11.17	16.48	13.47	14.43	21.16	29.16
May	17.53	12.54	17.57	14.63	14.95	22.96	29.63
June	18.17	13.40	16.57	16.35	15.82	23.85	29.46
July	18.65	13.78	17.69	16.69	17.48	25.06	29.12
August	18.99	15.53	18.64	16.65	18.14	25.39	28.61
September	19.19	15.65	18.44	16.57	18.52	25.76	29.50
October	18.82	15.00	16.92	15.85	18.79	25.39	29.74
November	18.51	14.71	15.33	15.19	19.09	26.24	30.29
December	18.51	14.24	14.39	15.31	18.30	25.80	30.63

Years and Months	Dyeing and Finishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires and Inner Tubes	Leather-Tanned, Curried and Finished	Hosiery and Knit Goods
*Basic Weekly Earnings**	*$22.34*	*$24.39*	*$25.45*	*$22.54*	*$24.84*	*$26.10*	*$18.10*
1925	22.26	24.39	24.90	22.78	24.83	26.05	17.66
1926	22.25	25.35	25.51	20.29	25.07	26.25	18.09
1927	22.52	24.67	25.94	24.56	24.61	25.99	18.54
1928	22.15	24.99	25.18	22.58	24.93	25.40	19.33
1929	22.37	25.83	25.76	23.23	24.36	25.45	19.46
1930	21.76	24.60	23.44	21.68	23.17	24.95	18.58
1931	21.92	21.54	22.59	19.54	22.12	23.70	17.00
1932	17.90	18.20	19.02	15.68	17.46	20.92	15.03
1933	18.47	17.66	22.34	15.15	16.30	21.21	14.03
1933							
January	16.39	16.08	19.79	13.40	16.12	19.17	12.47
February	18.35	15.97	18.63	13.82	15.37	20.53	12.49
March	17.25	16.02	17.32	12.47	13.18	19.69	13.38
April	16.79	15.51	15.82	13.78	14.44	19.35	13.64
May	18.18	17.14	19.25	15.04	17.33	20.90	12.67
June	20.50	18.15	25.66	15.19	18.59	22.55	13.82
July	20.12	19.40	26.20	17.00	17.89	23.83	13.89
August	19.52	19.51	24.95	16.01	16.82	22.24	15.13
September	18.78	19.21	25.29	16.06	16.56	21.74	15.60
October	18.94	18.56	25.23	16.33	16.35	21.48	14.92
November	18.30	18.20	25.20	16.27	16.07	21.61	14.60
December	18.47	18.28	24.69	16.43	17.02	21.58	15.64

*Average for the three years, 1925, 1926 and 1927.

Years and Months	Clothing, Men's	Bread and Other Bakery Products	Confectionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Goods	Clothing, Women's
*Basic Weekly Earnings**	*$19.79*	*$25.46*	*$16.90*	*$25.75*	*$21.94*	*$20.59*	*$21.65*
1925	19.35	25.92	16.99	24.91	21.94	20.19	20.68
1926	20.23	25.49	17.12	26.15	22.05	21.72	21.67
1927	19.79	24.97	16.59	26.19	21.82	19.86	22.59
1928	18.84	24.83	17.72	25.91	20.87	20.19	20.46
1929	19.85	25.24	17.32	26.61	21.02	18.44	21.40
1930	18.45	24.90	18.45	24.99	20.13	19.89	20.00
1931	16.51	24.27	16.09	21.98	18.89	16.06	17.70
1932	14.69	21.92	13.95	19.03	17.02	14.16	14.77
1933	14.50	20.79	13.24	17.72	16.20	15.03	13.70
1933							
January	13.03	20.91	13.24	17.18	16.16	14.00	12.40
February	13.86	21.25	12.51	17.53	16.52	14.76	12.71
March	13.82	20.64	11.76	13.91	15.10	11.74	10.57
April	11.54	20.17	11.43	15.95	15.41	11.48	13.93
May	12.26	20.49	11.72	16.59	17.39	15.35	13.24
June	13.97	20.54	12.10	17.40	17.12	16.11	13.68
July	15.01	20.96	12.36	18.15	17.08	16.57	12.10
August	16.84	20.12	12.98	18.28	16.83	16.38	14.40
September	16.95	21.21	15.23	20.11	16.75	16.44	16.38
October	16.69	21.13	15.66	20.67	14.80	16.34	16.53
November	16.34	21.13	13.55	18.31	15.08	16.00	14.37
December	13.54	20.84	16.35	18.42	16.20	15.26	13.85

*Average for the three years, 1925, 1926 and 1927.

There are presented in Table 8 index numbers representing the average number employed in manufacturing in each of the years 1925 to 1933, inclusive, in each of 14 of the leading industrial cities in Massachusetts, and also index numbers for each month in 1932 and 1933. The index numbers for 1932 have been adjusted in accordance with the *exhaustive* census returns for that year, and the index numbers for 1933 have been derived from data obtained in connection with the monthly survey of *representative* manufacturing establishments. Two charts showing the trend of employment in the manufacturing industries in the 14 leading industrial cities in Massachusetts are presented.[1]

In the 14 cities for which index numbers of employment in the manufacturing industries are presented in Table 8, the averages of the monthly index numbers for 1933, arranged in order from the highest to the lowest, were as follows: Lawrence, 77.2; Fall River, 73.4; Springfield, 66.3; Cambridge, 65.5; Lowell, 64.6; Holyoke, 64.1; Worcester, 62.7; Haverhill, 61.5; Brockton, 60.2; New Bedford, 58.2; Lynn, 56.1; Fitchburg, 55.3; Boston, 54.9; and Chicopee, 49.4. In nine cities there were increases in employment in the manufacturing industries in 1933, as compared with 1932, as follows: Fall River, 32.0 per cent; Holyoke, 25.0 per cent; New Bedford, 24.9 per cent; Lawrence, 16.4 per cent; Worcester, 14.4 per cent; Lowell, 9.7 per cent; Fitchburg, 9.3 per cent; Springfield, 6.4 per cent; and Cambridge, 3.1 per cent.

In Fall River, New Bedford, and Lawrence the large increases in employment were due, principally, to improvement in the textile industry, the predominating industry in each of these cities. In four cities there were decreases as follows: Lynn, 8.8 per cent; Boston, 6.5 per cent; Brockton, 4.4 per cent; and Haverhill, 4.4 per cent. In Chicopee there was no appreciable change in employment.

Wholesale and Retail Trade.—The collection of monthly pay roll data from wholesale and retail trade establishments was first undertaken by the Division in November, 1929. The survey has since been greatly extended in scope, and in December, 1933, 1,711 reports were received, covering 4,877 stores, in which 90,309 wage-earners were employed. The number of wage-earners covered constituted approximately 30 per cent of the total number employed in all wholesale and retail stores in the State, and is believed to be a truly representative sample.

The results of the monthly survey are made public in monthly press notices, showing the number of reports received, the number of stores reported for, the number of wage-earners employed, and the amount distributed in wages for each of ten principal trade groups, with a further classification by wholesale, retail, and chain stores, where such classification is applicable. Data are also presented for 11 cities which are important trading centers. For several groups of "chain" stores a separate tabulation of the returns by cities is not possible, but the omission of these returns from the tabulation by cities does not greatly impair the comparability of the results.

[1] See charts, pages 87 and 88, Plates 8 and 9.

Table 8. — Index Numbers of Employment in Manufacturing in 14 Leading Industrial Cities in Massachusetts for the Years, 1925–1933, inclusive

Base: — 100.0 = Average Number of Wage-earners Employed in the Three Year Period—1925, 1926 and 1927.

Sources. — For each of the years 1925–1932, inclusive, the Annual Census of Manufactures; for 1933 the Monthly Survey of Representative Manufacturing Establishments.

Years and Months	Boston	Brockton	Cambridge	Chicopee	Fall River	Fitchburg	Haverhill
Number of Wage-earners[1]	*78,364*	*12,682*	*21,859*	*10,171*	*31,146*	*8,411*	*11,080*
1925	98.7	103.8	100.4	103.6	98.2	105.5	104.0
1926	102.9	100.6	103.9	102.4	100.7	100.0	107.5
1927	98.4	95.6	95.7	94.0	101.1	94.5	88.5
1928	96.3	95.7	97.7	103.1	82.0	76.7	87.2
1929	97.7	99.3	100.6	105.8	84.3	78.2	75.5
1930	87.4	92.2	88.6	80.4	68.5	68.7	72.9
1931	74.1	84.0	73.8	64.2	70.8	60.5	64.4
1932	58.7	63.0	63.5	49.4	55.6	50.6	64.3
1933	54.9	60.2	65.5	49.4	73.4	55.3	61.5
1932							
January	65.9	70.2	65.4	59.7	60.8	50.6	52.5
February	65.2	72.3	64.6	60.7	73.2	50.3	76.5
March	64.3	72.7	65.3	60.7	65.7	50.9	81.3
April	60.7	63.5	64.8	53.9	44.1	49.6	67.6
May	57.9	54.9	63.5	46.3	36.0	48.3	60.4
June	54.0	54.7	63.1	41.7	36.4	49.2	61.4
July	47.4	66.8	58.9	44.3	40.7	45.0	57.7
August	54.0	69.4	60.2	43.3	48.6	51.6	71.0
September	58.0	60.8	64.2	42.1	65.5	55.0	69.9
October	60.7	65.3	67.8	45.6	64.9	52.4	66.8
November	58.6	59.0	63.9	46.9	61.6	50.9	57.3
December	57.7	46.3	60.5	47.9	69.7	53.0	49.2
1933							
January	52.8	61.8	57.1	48.5	69.7	53.6	53.9
February	54.0	62.7	59.7	48.8	69.4	49.4	66.2
March	52.0	62.0	58.9	45.0	55.9	45.8	48.4
April	52.6	62.0	59.7	34.4	61.8	44.5	59.1
May	54.3	59.7	60.4	38.7	63.9	50.2	63.7
June	53.7	58.4	62.1	50.6	75.6	56.7	66.6
July	55.7	66.5	65.9	56.3	79.4	60.5	70.6
August	53.1	71.8	69.4	59.7	69.9	61.9	66.6
September	60.0	34.0	73.7	57.6	78.7	59.7	74.7
October	61.0	54.6	74.4	54.3	85.4	62.7	68.7
November	56.9	66.8	73.4	50.1	86.9	60.7	48.2
December	52.7	61.7	71.7	48.8	83.6	58.0	52.1

Years and Months	Holyoke	Lawrence	Lowell	Lynn	New Bedford	Springfield	Worcester
Number of Wage-earners[1]	*16,499*	*25,983*	*20,405*	*20,551*	*35,308*	*17,989*	*31,047*
1925	103.0	101.1	105.7	92.2	101.1	98.3	100.3
1926	98.9	103.1	102.2	106.8	99.5	108.4	101.9
1927	98.1	95.8	92.1	101.0	99.4	93.3	97.8
1928	88.7	81.0	84.5	97.7	60.2	99.2	96.9
1929	83.5	89.1	83.8	99.8	91.1	103.6	102.8
1930	69.5	79.2	68.5	86.1	72.9	86.8	88.7
1931	62.8	90.4	67.2	76.3	66.7	77.5	77.2
1932	51.3	66.3	58.9	61.5	46.6	62.3	54.8
1933	64.1	77.2	64.6	56.1	58.2	66.3	62.7
1932							
January	53.2	70.7	60.3	75.4	48.6	67.2	57.3
February	55.8	80.1	65.4	80.4	53.1	67.8	57.7
March	53.9	85.7	65.6	76.0	51.2	66.6	55.7
April	52.3	72.2	54.5	68.0	45.7	65.7	54.3
May	49.7	59.4	48.8	63.2	37.9	62.9	53.3
June	45.4	53.5	51.0	55.4	28.5	63.0	52.5
July	42.1	56.2	48.6	55.7	35.7	56.7	52.0
August	42.7	62.4	64.8	59.6	40.3	54.8	53.7
September	53.8	69.3	69.0	57.8	52.6	57.7	55.3
October	56.9	65.5	70.7	57.8	57.6	61.6	57.4
November	55.2	60.8	53.2	46.7	55.4	62.3	56.6
December	54.8	60.2	54.6	41.2	52.4	61.7	52.1
1933							
January	54.4	62.4	64.5	46.3	53.0	57.9	50.6
February	53.9	75.1	69.9	55.5	55.5	56.6	50.3
March	51.8	62.0	67.4	48.5	48.9	53.8	50.0
April	51.3	65.5	63.8	48.7	41.8	53.0	49.9
May	56.5	76.0	46.4	53.0	45.5	56.4	54.3
June	65.6	84.1	60.9	48.5	54.2	61.7	58.5
July	74.8	92.1	68.2	56.1	66.2	65.7	65.3
August	79.6	97.8	73.6	58.3	69.4	73.3	72.7
September	76.9	85.7	67.0	65.9	69.0	78.8	76.9
October	73.0	84.5	70.2	67.5	69.7	79.4	78.0
November	67.6	71.6	61.6	64.9	65.4	78.9	75.5
December	64.2	71.5	62.1	60.0	59.4	79.5	70.2

[1] Average number of wage-earners employed in 1925, 1926 and 1927 = 100.

Table 9. — Index Numbers of Employment in Wholesale and Retail Trade — All Trade Groups and Each of Eleven Leading Groups; By Months; September, 1931–December, 1933

(Base — September, 1931 = 100.0)

Years and Months	All Trade Groups			Automobiles, Accessories, Gas and Oil Retail	Candy, Soda, and Drugs Retail	Department and Dry Goods Stores	
	Wholesale Trade	Retail Trade	Combined			"Chain"	Independently Owned
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	97.1	102.0	101.0	99.1	101.9	105.5	100.2
November	94.8	101.6	100.2	94.1	100.0	105.6	104.5
December	93.8	110.0	106.7	92.2	102.1	126.7	129.0
1932							
January	87.9	96.7	95.0	87.2	94.1	101.6	96.9
February	87.5	94.6	93.2	85.9	93.5	99.7	93.3
March	87.2	94.6	93.1	85.8	94.9	112.3	91.6
April	86.0	94.3	92.5	87.0	95.0	101.6	94.3
May	85.9	93.2	91.6	86.1	93.6	108.1	91.8
June	85.8	92.3	90.9	83.3	91.4	102.3	90.4
July	85.1	89.0	88.1	82.0	88.4	99.9	87.7
August	84.1	86.1	85.5	78.6	85.7	95.0	82.0
September	85.4	89.1	88.2	77.3	90.2	95.3	86.8
October	85.8	92.9	91.4	77.2	91.6	112.5	93.0
November	84.1	91.9	90.3	76.8	91.9	101.7	93.9
December	81.7	100.5	96.6	76.2	93.0	130.8	116.3
1933							
January	79.7	86.8	85.4	73.0	88.8	84.8	85.1
February	78.9	85.2	84.0	72.6	90.0	79.5	84.2
March	77.5	82.6	81.6	71.4	84.1	77.0	78.9
April	77.3	87.1	85.1	73.0	88.8	88.9	87.9
May	78.2	85.9	84.2	75.7	87.7	86.4	87.1
June	79.2	87.1	85.4	77.4	86.7	90.1	87.5
July	80.2	84.4	83.4	76.4	87.6	78.7	82.2
August	83.6	87.0	86.2	79.2	86.7	82.2	82.5
September	86.1	93.4	91.8	81.6	87.9	95.8	95.7
October	87.0	96.3	94.3	82.0	91.9	103.3	98.3
November	86.6	97.7	95.4	82.9	92.2	108.4	100.6
December	85.3	107.7	103.0	82.7	97.9	136.3	122.3

Years and Months	Fuel and Ice Retail	Groceries, Provisions, Meats and Fish			Lunch Rooms and Restaurants		Wearing Apparel and Accessories Retail
		Wholesale	Retail				
			"Chain" Stores	Independently Owned	"Chain"	Independently Owned	
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	115.9	98.3	99.6	99.3	101.2	106.1	103.1
November	113.9	96.6	98.8	97.7	100.7	101.1	103.0
December	114.5	95.8	100.4	97.1	103.4	98.5	116.8
1932							
January	116.2	88.8	99.7	92.2	100.4	96.4	95.0
February	113.9	88.9	98.8	93.2	102.1	93.3	90.3
March	116.5	88.6	95.8	92.8	102.0	94.0	91.1
April	100.7	87.4	95.6	92.5	100.7	94.9	93.1
May	95.6	86.8	96.3	93.2	100.7	93.5	90.0
June	91.1	86.2	97.2	92.5	97.9	92.1	94.2
July	87.6	86.6	96.9	90.3	95.7	86.9	86.6
August	85.3	86.4	96.7	89.2	95.1	83.4	82.6
September	94.3	85.4	95.7	92.3	96.5	86.9	88.4
October	106.7	86.3	95.0	93.1	96.1	86.6	93.1
November	103.4	85.4	93.5	92.5	95.0	86.0	94.2
December	113.3	83.9	93.5	92.8	93.8	85.5	106.7
1933							
January	112.6	82.4	91.3	92.2	95.7	82.9	86.3
February	115.1	81.9	90.9	92.8	96.0	81.9	81.6
March	115.2	81.2	88.0	91.4	95.2	79.0	79.7
April	101.8	81.8	87.3	92.2	94.7	79.7	92.1
May	87.2	82.0	86.9	91.9	93.2	79.9	89.0
June	86.4	81.2	88.7	91.8	94.1	77.3	91.4
July	92.4	81.7	89.8	90.8	93.6	75.5	87.3
August	95.4	86.0	101.2	96.8	95.0	78.1	82.7
September	96.2	88.0	100.2	97.7	101.8	82.4	93.3
October	102.5	89.1	100.1	100.0	104.1	82.8	98.7
November	105.8	87.3	100.1	100.8	107.3	81.8	99.9
December	114.9	87.0	101.1	96.5	109.0	80.3	114.6

Information in detail is not presented in this report, but two series of index numbers [1] and two groups of charts [2] showing the trends of employment and amount of wages paid for the principal trade groups, during the period September, 1931, to December, 1933, are here included. Because of unavoidable changes which occur in the list of reporting establishments the index numbers have been computed by the "link-relative" method, and in order that they may be directly comparable with index numbers for other classes of employment which were added to the monthly surveys in 1931, the returns for the month of September, 1931, have been taken as the base (100) in computing the index numbers.

A comparison of the index numbers of employment in Table 8 shows that during the year 1933 employment in the various branches of retail trade, considered as a single group, continued to be maintained at a generally higher level than employment in wholesale trade.

In wholesale trade, employment in each of the first seven months in 1933 was much below the level of the corresponding month in 1932. In August, 1933, there was a fair gain, which brought the level within a few points of August, 1932. In each of the months thereafter in 1933, employment was slightly greater than during the corresponding months in 1932.

Retail trade is subject to more marked fluctuations in employment than wholesale trade, largely because of seasonal conditions affecting sales, especially by department, dry goods, and wearing apparel stores. In general, however, both wholesale trade and retail trade, showed similar general trends. During the first seven months in 1933, the index numbers of employment in retail trade were lower than the index numbers for corresponding months in 1932, but during the last five months in 1933 the index numbers were higher than those for the corresponding months in 1932. In December, 1933, the index number was 107.7, the highest point reached since December, 1931, and exceeded by 7.2 per cent the index number (100.5) for December, 1932.

Of the 11 principal trade groups, the retail distributors of fuel and ice maintained a generally higher level of employment in 1933 than did any of the other groups. Next in order were the "chain" lunch rooms and restaurants, and the "chain" and the independently owned grocery, provision, meat, and fish stores. The retail distributors of automobiles, accessories, gas, and oil, "chain" and independently owned, and the retail wearing apparel and accessories stores showed the greatest seasonal fluctuations in employment, with especially large increases in December, as a result of Christmas trade.

The lowest level of employment in 1933 in each of these groups was in March, with a large increase in April, due to the Easter trade, which affected particularly the wearing apparel stores. There was also the usual summer dull season, which resulted in less employment in all three classes of stores. Employment in the "chain" lunch rooms and restaurants was at a higher level during each of the last three months in 1933 than at any other time during the period beginning September, 1931.

Index numbers representing the amount of wages paid to employees in wholesale and retail trade for the principal trade groups are presented in Table 10. The returns for the month of September, 1931, were taken as the base (100.0) in computing this series. Charts showing the trend of employment and of amount of wages paid in various branches of wholesale and retail trade are also presented.[2]

For wholesale trade the index numbers representing total amount of wages paid in 1933 showed little change from month to month, and a total variation during the year of less than ten points. The last half of the year was more favorable than the first half, but in the peak months, September to December inclusive, the amount paid in wages averaged almost the same as during the corresponding four months in 1932, which were the low months in that year. In retail trade the amount paid in wages in 1933, compared quite favorably, by months, with the amounts paid in 1932. The amount paid in wages during the earlier months in 1933 was much less than during the corresponding months in 1932, but during each of the last four months in 1933 the index number of wages paid was slightly in excess of the corresponding index number in 1932.

[1] See Tables 9 and 10.
[2] See Appendix, pages 89 and 90, Plates 10 and 11.

Table 10. — Index Numbers of Total Amount Paid in Wages in Wholesale and Retail Trade — All Trade Groups and Each of Eleven Leading Groups; By Months; September, 1931–December, 1933

(Base — September, 1931 = 100.0)

Years and Months	All Trade Groups			Automobiles Accessories, Gas and Oil Retail	Candy, Soda, and Drugs Retail	Department and Dry Goods Stores	
	Wholesale Trade	Retail Trade	Combined			"Chain"	Independently Owned
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	97.1	101.1	100.0	95.9	100.9	101.7	100.8
November	94.6	100.6	99.0	90.5	104.3	104.0	104.7
December	93.6	106.3	103.1	90.2	106.9	125.8	123.2
1932							
January	86.8	93.5	91.9	84.3	89.5	101.1	94.0
February	85.4	90.6	89.4	82.4	89.3	95.4	87.7
March	84.1	91.0	89.3	83.6	88.6	94.6	89.8
April	81.9	89.8	87.9	84.4	89.0	92.5	89.6
May	81.0	87.0	85.5	82.2	87.7	88.8	87.6
June	79.5	84.8	83.4	78.1	83.3	86.2	84.2
July	78.3	80.8	80.1	73.1	79.4	87.4	79.1
August	76.4	77.6	77.2	69.2	76.4	81.1	75.8
September	77.5	81.0	80.0	68.2	79.8	74.9	86.0
October	76.0	84.5	80.4	65.9	81.4	80.3	86.4
November	74.0	84.2	79.7	65.4	81.5	80.0	87.9
December	72.3	89.5	83.0	64.1	83.5	103.7	102.6
1933							
January	71.0	78.8	74.9	59.6	78.2	69.0	78.1
February	69.7	76.5	73.0	59.3	79.3	66.6	74.9
March	67.6	72.3	69.4	56.8	70.3	62.1	65.5
April	67.9	76.5	72.6	59.8	77.3	73.2	75.3
May	68.7	75.7	72.2	61.8	71.0	71.4	75.1
June	69.7	76.7	73.1	62.4	68.9	75.6	76.1
July	71.2	76.1	73.0	61.3	69.0	66.8	74.7
August	72.9	78.6	75.3	62.4	70.2	70.9	77.6
September	75.2	84.2	79.9	64.5	73.3	84.2	90.9
October	75.7	85.6	81.0	63.7	75.6	88.7	91.8
November	75.0	86.9	81.7	65.2	77.3	87.3	92.6
December	74.4	93.1	86.0	64.2	81.0	106.9	110.1

Years and Months	Fuel and Ice Retail	Groceries, Provisions, Meats and Fish			Lunch Rooms and Restaurants		Wearing Apparel and Accessories Retail
		Wholesale	Retail				
			"Chain" Stores	Independently Owned	"Chain"	Independently Owned	
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	111.9	97.5	99.2	100.2	102.0	102.4	103.0
November	107.8	95.9	98.7	98.5	104.6	98.5	103.1
December	117.8	95.6	99.4	98.0	105.8	94.3	110.5
1932							
January	113.4	88.1	94.3	92.0	100.4	93.1	93.6
February	113.5	87.3	93.5	92.3	100.1	91.1	88.8
March	118.4	86.0	93.3	90.5	99.2	90.6	88.5
April	96.7	84.2	92.9	90.4	93.8	90.6	90.6
May	79.8	82.7	92.3	89.7	93.8	87.7	86.2
June	74.0	81.1	92.6	89.3	90.7	84.2	86.4
July	75.0	80.3	90.4	87.1	87.3	78.1	80.0
August	68.1	78.9	89.3	84.5	86.5	74.4	76.4
September	82.6	78.3	88.9	85.8	88.5	76.9	80.1
October	86.6	77.7	87.8	87.0	87.5	78.9	83.2
November	88.5	76.1	86.7	85.4	86.5	77.2	83.2
December	100.6	75.6	86.3	85.1	85.2	74.9	91.2
1933							
January	98.8	75.8	83.0	83.7	85.3	71.9	74.5
February	107.4	75.3	83.0	82.8	84.6	69.2	65.5
March	101.7	73.7	81.8	80.4	84.1	66.0	62.7
April	83.3	74.9	82.0	80.1	83.8	67.1	75.6
May	67.5	74.7	81.7	79.3	82.5	67.8	74.6
June	65.1	74.8	83.3	79.4	82.4	66.0	76.8
July	76.8	75.8	85.0	79.3	81.6	64.0	73.8
August	74.3	77.6	92.9	83.5	83.2	66.0	72.0
September	78.5	79.8	92.8	85.3	88.4	72.9	78.8
October	81.3	80.7	93.2	86.6	89.4	71.7	83.1
November	90.1	78.9	94.1	86.7	90.4	70.3	85.3
December	100.2	78.6	95.3	84.5	91.2	69.9	93.3

The dismissal of employees after the Christmas season is clearly indicated when the index numbers for December and the following January are compared, not only for the entire retail trade group as a whole, but for the various groups specified.

In general, the fluctuations in the amount of wages paid in the principal trade groups corresponded closely with the fluctuations in the number of persons employed from month to month, except that when the regular force of employees was supplemented with additional employees for temporary sales, the increases in the amount of wages paid were not proportionately as large as the increases in the number of persons employed, indicating that salespeople employed temporarily are not as well compensated as those who are permanently employed. The same groups which have already been mentioned as showing most favorable employment conditions maintained a generally higher level of wage payments than did any of the other trade groups.

Building Construction. — The collection of monthly pay roll data from building contractors was first undertaken by this Division in April, 1927. The information called for included the following items: number of building tradesmen employed during the week including the 15th of the month; total number of hours worked; and the amount paid in wages. Reports were received each month in 1933 from about 700 building contractors who employed, in October, the peak month, nearly 5,000 building tradesmen, or approximately 25 per cent of the total number of building tradesmen employed in the State. Nearly all of the important general contractors and sub-contractors in the building industry are included in the list of those reporting each month. Pay roll data are furnished by individual projects, or groups of projects within a single city or town, and the returns are presented in the monthly press announcements, by classes of work done, and also by principal cities and towns. The amount of building construction in the several municipalities varies greatly from month to month, even though the totals for the State may not show any marked changes.

In order that the thousands of building tradesmen may find even fairly steady employment, it is quite necessary that there be those large individual projects which require a sizable force of workmen for a period of weeks, or months. Construction of this character was greatly lacking in 1933, as shown by the fact that of the total building, only about one-fifth consisted of the new non-residential type (office and bank buildings, public works, and utilities, factories, etc.). The value represented by additions, alterations, and repairs constituted about two-fifths of the total, and residential buildings, the other two-fifths. There was a limited number of large projects in the nature of additions and alterations, but for the most part, the projects in this class were small, and required few tradesmen. Residential construction was almost altogether in the nature of single dwellings, which may oftentimes be erected largely by the contractor himself, with occasional help as needed. These facts all lead to the conclusion that many building tradesmen, for whom no records appear in this survey, were intermittently employed in 1933, but it is almost impossible under conditions which existed, to ascertain just how many had work of any nature, and how extensive it was.

The data are tabulated so as to show, by type of work, the number of man-hours worked and the earnings of those employed, which additional information adds to the value of the returns as formerly presented.

The series of index numbers, computed by the "link-relative" method, showing the trends of employment, man-hours worked, amount paid in wages, and other items for each month in 1932 and 1933 are presented in Table 11. The index numbers for prior months, beginning with April, 1927, have already been published, and are not included in this table. A chart,[1] showing the trends of employment, total wages paid, and man-hours worked in the building construction industry, by months, during the period, April, 1927, to December, 1933, appears in the appendix.

[1] See Appendix, page 91, Plate 12.

*Table 11. — Index Numbers of Employment and Earnings of Building Tradesmen in Massachusetts as Reported by Building Contractors**

(Average for Year 1928 = 100.0)

Months	Number of Tradesmen	Number of Man-hours	Amount Paid in Wages	Average Weekly Hours per Man	Average Weekly Earnings per Man	Average Hourly Earnings per Man
1932						
January	44.2	34.6	34.4	78.3	77.8	99.4
February	38.6	28.7	28.1	74.4	72.8	97.9
March	38.1	28.4	27.8	74.4	73.0	97.9
April	44.0	33.0	31.0	75.0	70.5	93.9
May	47.8	39.9	35.4	83.5	74.1	88.7
June	46.8	37.1	32.9	79.5	70.2	88.4
July	43.9	35.3	31.0	80.4	70.6	87.8
August	40.7	32.6	28.2	80.2	69.3	86.5
September	40.0	33.4	30.0	83.5	75.0	89.8
October	40.7	31.9	27.5	78.4	67.6	86.2
November	38.4	28.9	24.3	75.3	63.3	84.1
December	30.8	21.8	18.8	70.8	61.0	86.2
Average, 1932	*41.2*	*32.1*	*29.2*	*77.8*	*70.4*	*90.6*
1933						
January	23.9	16.9	14.7	70.7	61.5	87.0
February	21.5	14.8	12.7	68.8	59.1	85.8
March	21.2	14.7	12.1	69.3	57.1	82.3
April	23.6	15.8	12.9	66.9	54.7	81.6
May	29.3	23.4	18.1	79.9	61.8	77.4
June	29.9	23.5	18.1	78.6	60.1	77.0
July	29.8	24.3	18.2	81.5	61.1	74.9
August	31.5	24.6	19.1	78.1	60.6	77.6
September	31.6	24.9	19.8	78.8	62.7	79.5
October	33.3	25.1	19.5	75.4	58.6	77.7
November	31.4	23.6	17.9	75.2	57.0	75.8
December	27.3	20.4	15.6	74.7	57.1	76.5
Average, 1933	*27.9*	*21.0*	*16.6*	*74.8*	*59.3*	*79.4*

* This survey was first undertaken in April, 1927.

On reference to Table 11 it will be noted that the employment of building tradesmen was at its lowest level during the first four months in 1933, not only with respect to that year, but also since the collection of these data was begun in 1927. The average of the index numbers representing employment for the months in 1933 was 27.9, a decrease of 30.2 per cent, as compared with 41.2 for the year 1932. The index number representing man-hours worked in 1933 was 21.0, or 34.6 per cent less than the corresponding index number (32.1) for 1932, and the index number (16.6) representing the amount paid in wages in 1933 was less by 43.2 per cent than the corresponding index number (29.2) for 1932. The average weekly hours worked per man in 1933 decreased by 3.9 per cent (from 77.8 in 1932 to 74.8 in 1933); the weekly earnings per man decreased by 15.8 per cent (from 70.4 to 59.3); and the average hourly earnings per man decreased by 12.4 per cent (from 90.6 to 79.4).

Highway Construction. — In 1931 the monthly surveys were extended to include highway construction. In 1933 reports were received each month from about 85 contractors, who employed, during the peak month, about 3,000 workmen. The reports received covered approximately 90 per cent of the total number of workmen employed on all highway construction done under contract in Massachusetts during the year. Somewhat less highway work was undertaken in 1933 than in 1932 by the State, counties, and municipalities in Massachusetts. The extent to which workmen were employed is indicated by the monthly index numbers of employment for the period September, 1931 to December, 1933, presented in Table 12. In computing these index numbers, the number of workmen employed in September, 1931, was taken as the base, 100.0.

According to the index numbers presented in Table 12, very little public highway work was done by contractors during the first five months in 1933. Beginning in June there was an increase, which continued through November, the peak month of the year, when the index number was 47.3.

In connection with the survey of municipal employment, discussed later in this report, pay roll data were obtained, showing the number of manual workers employed in the street, highway, and public works departments. Except for the fact that many additional laborers were employed temporarily in the cities and towns on snow and ice removal in February, 1933, the trends of employment of highway workmen by contractors and by municipalities were very similar. In each case the smallest number was employed in March, and the greatest number in November.

Table 12. — Index Numbers of Employment of Highway Workmen: By Months, September, 1931–December, 1933

(Base — September, 1931 = 100.0)

Years and Months	Workmen Employed on Public Highway Work by Private Contractors	Manual Workers Employed by City and Town Street, Highway, and Public Works Departments	Both Classes Combined
1931			
September	*100.0*	*100.0*	*100.0*
October	91.4	100.8	98.2
November	76.0	92.6	87.8
December	53.4	83.8	74.7
1932			
January	29.5	85.4	68.4
February	22.0	82.7	64.3
March	21.7	71.2	56.2
April	35.6	74.5	62.6
May	58.4	72.9	68.0
June	56.0	79.0	71.6
July	59.0	80.6	73.6
August	51.8	76.6	68.6
September	45.0	74.6	65.1
October	46.2	68.4	61.2
November	48.1	66.6	60.6
December	30.0	70.2	57.5
1933			
January	26.6	60.3	51.4
February	23.8	85.4	68.3
March	21.1	56.6	47.0
April	26.5	64.2	54.2
May	31.1	64.7	56.1
June	38.8	67.0	60.3
July	35.7	70.0	61.4
August	36.9	70.9	62.4
September	38.9	72.6	64.3
October	42.1	73.8	66.2
November	47.3	74.2	68.0
December	29.5	69.6	59.2

A combination of the returns for the two classes of workmen shows the extent to which there was employment on highway construction and maintenance in general. A chart,[1] showing the trends of employment in each of the three classes mentioned, during the period September, 1931, to December, 1933, appears in the appendix.

Public Utilities. — The monthly survey of employment by public utility companies was first undertaken in January, 1929. During the past two years the list of companies reporting has been virtually identical, and about the only changes were in the nature of mergers or consolidations, which reduced the number of companies without changing the coverage. All employees, both manual and clerical (except salaried executives) on the pay rolls of these companies in Massachusetts are included in the reports. In December, 1933, reports were received from 131 companies, which together employed a total of 45,199 wage-earners. These 131 companies comprised six steam railroads, 14 street and electric railways, 25 passenger bus companies, and 86 gas and electric companies. It is estimated that these companies employ approximately 95 per cent of the total number of wage-earners on the pay rolls of all public utility companies in Massachusetts within the four classifications specified. Each of the three steam railroad companies engaged in interstate transporation furnishes pay roll data covering its operations within Massachusetts.

Two series of index numbers are presented in Table 13, one of which relates to employment, and the other to the total amount paid in wages to employees in each of the four classes of public utility companies, based on the respective averages for the year 1930 taken as 100.0. A chart,[2] showing graphically, by months, the trends of employment and of total amount of wages paid by these public utility companies during the four years, 1930 to 1933, inclusive, appears in the appendix.

[1] See Appendix, page 92, Plate 13.
[2] See Appendix, page 93, Plate 14.

Table 13. — Index Numbers of Employment of Wage-earners and of Amount Paid in Wages by Public Utility Companies in Massachusetts: 1930, 1931, 1932, and by Months in 1933

(Average for Year 1930 = 100.0)

Years and Months	All Classes Combined	Steam Railroads	Street and Electric Railways	Passenger Bus Companies	Gas and Electric Companies
Employment					
Average, 1930	100.0	100.0	100.0	100.0	100.0
Average, 1931	91.4	86.5	96.7	100.4	96.1
Average, 1932	81.6	74.4	90.2	95.5	88.5
Average, 1933	77.6	71.5	81.2	101.2	85.2
1933					
January	78.2	72.2	82.9	93.5	85.2
February	78.6	73.0	83.3	93.0	84.9
March	76.9	70.4	82.0	91.5	84.7
April	76.5	69.8	81.6	95.4	84.4
May	76.2	69.7	80.9	98.1	83.7
June	76.5	70.1	80.8	101.7	83.7
July	77.0	70.9	80.7	104.9	84.0
August	77.5	71.6	80.6	107.5	84.2
September	78.7	73.0	80.8	107.8	85.9
October	79.0	73.1	80.4	106.9	87.3
November	78.5	71.9	80.6	107.5	87.5
December	78.1	71.7	79.6	106.8	87.4
Amount Paid in Wages					
Average, 1930	100.0	100.0	100.0	100.0	100.0
Average, 1931	89.5	83.7	95.3	99.2	94.4
Average, 1932	73.7	63.4	83.6	85.3	82.8
Average, 1933	66.1	58.9	69.3	85.1	74.5
1933					
January	66.3	58.9	70.4	79.7	74.8
February	68.2	61.9	72.9	80.7	74.1
March	64.7	56.4	70.0	76.4	73.7
April	64.4	55.4	69.3	83.0	74.4
May	64.0	55.7	68.9	83.7	72.5
June	64.9	57.1	68.1	85.8	73.8
July	65.8	59.0	68.0	88.6	73.7
August	66.0	59.4	67.9	92.2	73.7
September	67.7	62.2	68.2	90.3	75.0
October	67.5	61.3	68.8	87.4	75.6
November	66.5	58.8	69.3	87.1	75.9
December	67.5	60.6	69.5	86.2	76.2

According to the index numbers representing employment in all four classes of public utilities combined, there was a decrease of 4.9 per cent in 1933 in the average number employed, when compared with the average number employed in 1932. The changes from month to month were relatively small, and the difference between the lowest index number (76.2) in May, and the highest (79.0) in October, was only 2.8 points, or 3.5 per cent.

The number of wage-earners employed by the steam railroad companies constitutes about one-half of the total number employed by all four classes of public utility companies reporting, and has considerable weight in determining the trend of employment and earnings of wage-earners in the four classes combined. The month to month changes in this group were small, and the average for the year was 3.9 per cent below the average for the year 1932.

The street and electric railway employees were more seriously affected by unemployment in 1933 than were the employees of the steam railroads or the gas and electric companies. The index number (81.2) for the year 1933 was 10.0 per cent less than the index number (90.2) for the year 1932. This was not due to any marked changes in 1933, but to the continuance of the low level of employment during the latter part of 1932.

The passenger bus companies in 1933 increased their forces considerably, and the index number (101.2) for the year exceeded by 6.0 per cent the corresponding index number (95.5) for 1932. Seasonal fluctuations are indicated by decreases in the first three months, and large increases beginning in April and continuing through the remainder of the year. Employment during the last seven months of the year was at a high level, and no seasonal decreases occurred at the close of the year.

The number of wage-earners employed by the gas and electric companies in 1933 changed but little from month to month. The index number (85.2) for the year 1933 was 3.7 per cent below the index number (88.5) for the year 1932.

In discussing the trend of wages paid by the several classes of public utility companies, attention should be called to the fact that during the latter part of 1932 many reductions in wage rates became effective. Consequently, the amounts paid in wages during the closing months of that year were much less than the averages for the year in each of the groups except the group of passenger bus companies, in which there was little change. The low levels reached at the close of 1932 continued through 1933 with even further reductions, in some instances, in the total payments because of short-time employment.

Municipal Employment. — Beginning with April, 1931, reports relative to employment by municipalities in the Commonwealth have been received each month. These reports cover mechanics, workmen, laborers, and other municipal employees who receive their pay weekly, in accordance with the provisions of the General Laws, Chapter 149, Section 148. Each city and town reports by departments. In order to show the strong seasonal tendencies and the extent to which road construction work by municipalities has served to relieve unemployment, the pay rolls for manual workers in street, highway, and public works departments are tabulated separately from the pay rolls for workers in other departments. Pay roll data relative to police, fire, and school departments, and hospitals maintained by public funds are not included in this survey.

For more than two years reports have been received each month from nearly 100 municipalities, comprising over 80 per cent of the population of the State. In those cities and towns from which no reports are obtained, there is a comparatively small number of municipal employees, and their inclusion would not add sufficiently to the value of the survey to warrant their being canvassed each month.

Two series of index numbers are presented in Table 14, one of which relates to employment of municipal employees and the other to the total amount paid them in wages for one week in each month beginning with September, 1931, the returns for which month have been taken as the base, 100.0, in computing the index numbers. A chart,[1] showing the trend of employment and of amount paid in wages in the municipalities, by classes of employment during the entire period covered, appears in the appendix.

On reference to the index numbers in Table 14, it will be noted that there were seasonal fluctuations in employment in each of the classes of work. In February, 1933, the number of workers employed (with the exception of clerical and other non-manual employees) greatly exceeded the corresponding number employed in January and March, 1933. This was due almost wholly to the employment of special temporary workmen on snow and ice removal in February. There was also some increase in employment in all classes of work during the summer and fall months. For the year 1933, as a whole, there was a reduction in the number of municipal employees as compared with the number employed in 1932, and this was also true of the total amount paid in wages to such employees. Evidently this was necessary because of reductions in municipal appropriations for highway and other construction work in 1933.

Agriculture. — The number of persons employed in agriculture in Massachusetts constitutes only slightly over three per cent of the total number of persons gainfully employed in all industries in the State; nevertheless, an endeavor has been made to secure monthly reports from a representative list of employers of agricultural labor. It has not been possible to secure an adequate representation, because the number of farms, market gardens, dairies, etc., in connection with which three or more persons are employed, is very small, and it is not feasible to attempt to secure a large number of reports each month from one-man or two-man farms. A few persons, usually the members of the family on a farm, can care for a large acreage, except during the planting and harvesting seasons, when some temporary help is employed. Quite frequently farmers in a district co-operate during the busy seasons, aiding each other when an emergency arises.

The list of reporting agencies now includes 100 employers of agricultural labor, consisting of 21 farms and market gardens, 27 dairies and stock farms, 34 nurseries,

[1] See Appendix, page 94, Plate 15.

Table 14. — Index Numbers of Employment and of Amount Paid in Wages in Municipalities: By Specified Classes of Employment, September, 1931–December, 1933

(Base — September, 1931 = 100.0)

Years and Months	Manual Workers			Clerical and other Non-manual Employees paid Weekly	Total — All Classes Specified
	Street, Highway, and Public Works Departments	Other Departments	Total, All Departments		
Employment					
1931					
September	100.0	100.0	100.0	100.0	100.0
October	100.8	103.0	101.6	100.7	101.4
November	92.6	100.8	95.5	98.8	95.9
December	83.8	106.9	91.8	93.9	92.1
1932					
January	85.4	98.2	89.8	102.3	91.8
February	82.7	96.6	87.5	97.1	89.0
March	71.2	94.1	79.0	98.6	82.0
April	74.5	101.3	83.7	100.6	86.3
May	72.9	111.7	86.1	100.8	88.4
June	79.0	110.8	89.9	99.4	91.4
July	80.6	116.3	92.8	104.4	94.6
August	76.6	122.3	92.2	104.7	94.1
September	74.6	116.4	88.9	98.2	90.3
October	68.4	114.1	84.0	99.5	86.3
November	66.6	111.0	81.8	101.4	84.7
December	70.2	104.0	81.8	100.9	84.6
1933					
January	60.3	95.3	72.3	99.2	76.2
February	85.4	100.5	90.7	99.3	91.8
March	56.6	82.7	65.6	99.3	70.5
April	64.2	84.4	71.2	103.4	75.9
May	64.7	94.8	75.0	104.2	79.3
June	67.0	98.9	77.9	105.2	81.8
July	70.0	96.9	79.2	110.2	83.7
August	70.9	98.2	80.2	108.9	84.4
September	72.6	98.2	81.4	107.3	85.1
October	73.8	95.1	81.2	106.6	84.8
November	74.2	98.4	82.5	105.1	85.7
December	69.6	84.8	74.8	104.0	79.0
Amount Paid in Wages					
1931					
September	100.0	100.0	100.0	100.0	100.0
October	94.3	93.8	94.1	102.7	95.5
November	89.7	93.4	90.9	100.5	92.4
December	84.0	102.6	90.4	91.6	90.7
1932					
January	81.4	89.8	84.2	102.9	87.2
February	75.7	83.7	78.4	99.2	81.7
March	69.6	81.8	73.8	100.1	77.9
April	72.0	85.4	76.6	102.7	80.6
May	71.7	95.4	80.0	101.9	83.3
June	74.4	92.0	80.5	100.9	83.6
July	75.0	95.9	82.3	103.7	85.5
August	71.8	96.5	80.4	105.2	84.1
September	69.1	92.1	77.0	100.0	80.5
October	62.4	88.0	71.2	100.1	75.5
November	61.7	86.1	70.1	103.0	75.0
December	64.7	82.5	70.7	102.3	75.5
1933					
January	56.7	77.6	63.8	99.8	69.2
February	67.8	76.0	70.4	100.0	74.9
March	51.2	70.4	57.7	99.7	63.9
April	54.5	71.6	60.2	103.0	66.5
May	53.8	76.3	61.4	99.3	67.0
June	54.9	80.2	63.5	98.1	68.7
July	58.0	79.2	65.1	100.8	70.5
August	58.1	82.5	66.3	101.2	71.6
September	58.4	78.1	65.5	99.9	70.7
October	59.7	75.9	65.6	99.3	70.7
November	60.5	77.5	66.7	97.8	71.5
December	58.9	73.1	64.1	97.6	69.2

wholesale florists, and landscape gardens, nine fruit growers, eight cranberry growers, and one leaf-tobacco grower. In 1913 the maximum number of persons was employed in October, which is the harvest season for many crops. The pay roll reports received do not include salaries or wages of owners, partners, tenants, managers, or overseers.

Index numbers of employment of agricultural labor, by months, in 1932 and 1933, follow:

	1932	1933		1932	1933
January	38.1	33.8	July	74.9	65.8
February	36.2	32.8	August	71.5	64.4
March	38.3	34.1	September	119.1	84.3
April	61.5	53.8	October	110.9	92.7
May	82.2	67.3	November	62.8	56.1
June	74.1	68.8	December	49.7	42.6

It will be observed that in the winter months employment was at its lowest point. There was a decided improvement in April and May, with employment continuing at about the May level throughout the summer of 1933. In September the number employed increased greatly, and in October employment was somewhat better than in September. A sharp decline was noted in November, and there was a further decrease in employment in December. These seasonal trends resulted from a combination of factors. In each of the four principal classes of agricultural employment, additional workmen were employed during the spring months. At the dairies, on stock farms and market gardens there was an increase in employment during the summer months. In cranberry growing, additional men were required for preparatory work on the bogs in the spring and the harvesting sorting and packing of the cranberries during the fall months furnished work for additional employees, both men and women.

Office and Miscellaneous Employment. — In order that the monthly surveys might be more fully representative of all important classes of employment in the State, a number of somewhat unrelated classes, not previously canvassed, were added to the list in 1931. During the past year there has been little change in the number of employees in this group, and reports have been received from nearly 700 employers, representing over 900 companies, establishments, or "units," which furnish employment to approximately 30,500 wage-earners.

For eight of these classes or subdivisions, monthly index numbers of employment during the period September, 1931, to December, 1933, are presented in Table 15, and a chart,[1] showing, graphically, the trend of employment during the same period, appears in the appendix. The number of persons employed in September, 1931, was taken as the base (100.0) in computing the index numbers in each of the series.

Table 15. — Index Numbers of Employment in Eight Miscellaneous Classes of Employment. By Months; September, 1931–December, 1933

(Base — September, 1931 = 100.0)

Years and Months	Banks and Trust Companies	Insurance Companies and Agencies	Hotels	Laundries	Hospitals	Schools and Colleges	Amusement and Recreation Places	Trucking and Handling
1931								
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	101.2	99.5	101.6	101.7	99.6	121.3	101.2	97.9
November	100.1	100.3	101.1	100.2	99.7	121.5	101.5	96.8
December	95.3	100.4	98.8	98.7	101.0	120.0	100.5	98.9
1932								
January	95.2	99.6	96.2	95.3	99.3	118.1	96.5	89.7
February	94.9	99.8	95.5	94.6	99.3	116.7	88.9	90.8
March	94.7	99.9	95.0	94.2	99.0	117.1	81.5	88.3
April	94.2	100.1	94.4	94.1	99.4	117.1	88.3	89.1
May	94.1	100.0	93.2	93.7	99.4	117.5	73.6	81.0
June	94.0	99.6	95.8	97.5	99.3	102.7	69.3	77.8
July	94.1	100.3	94.1	95.9	101.6	45.0	66.7	74.4
August	94.0	100.3	91.0	94.6	100.9	40.7	66.6	73.2
September	93.1	99.4	85.1	96.9	99.0	89.8	71.2	73.2
October	92.2	99.5	84.3	97.3	97.4	100.6	72.2	86.3
November	91.6	99.8	84.8	96.6	98.7	100.4	71.3	78.8
December	91.4	99.6	84.0	96.3	98.5	96.0	63.0	77.6
1933								
January	91.2	99.7	82.6	94.3	98.4	96.3	57.5	82.4
February	90.7	99.8	82.4	95.3	98.1	95.1	55.8	78.2
March	89.2	99.7	81.2	93.8	96.1	95.0	55.2	73.0
April	87.2	99.7	79.7	93.8	95.8	95.5	55.0	77.2
May	86.9	100.5	81.0	93.5	96.9	95.5	54.8	86.2
June	84.0	99.9	81.2	95.3	98.0	89.2	54.4	82.2
July	85.1	99.1	78.4	94.5	100.3	42.1	52.2	88.9
August	86.1	99.2	76.9	94.5	100.9	37.3	52.2	89.5
September	85.8	100.2	78.1	93.4	98.8	58.7	53.6	87.7
October	85.9	102.3	72.8	93.6	96.2	94.5	55.9	98.5
November	86.6	102.3	73.7	92.9	97.5	94.8	57.7	92.0
December	86.5	102.4	77.0	91.8	98.1	94.5	56.2	86.3

[1] See Appendix, page 95, Plate 16.

In the *banks and trust companies* the month to month changes were almost negligible. The average of the index numbers of employment for the months in 1933 was somewhat less than the average for 1932. The *insurance companies* maintained an almost uniform force of employees during the entire period, with slightly greater employment towards the close of the year.

In *hotels* the general trend of employment was slightly downward. The opening of summer hotels failed to add to any great extent to the number employed. The *laundries* showed no appreciable change in employment during the entire year 1933. The same was true of employment in *hospitals*, the reports for which include "institutional employees," such as nurses in training, orderlies, building employees, and laborers about the grounds, but do not include professional employees who are paid on an annual salary basis, attendants, and consulting physicians.

In *schools and colleges* those covered by the reports include the office staff and employees in the buildings and about the grounds, but do not include the teaching staff. Employment of such "institutional employees" fluctuated greatly at the beginning and ending of the school year. The numbers employed in July, August, and September in 1933 were decidedly less than in any other months of the year. In the fall of 1933 the institutions re-employed virtually the same number as before the vacation season.

Little change occurred in *amusement and recreation places* in 1933. The *trucking and handling companies* employed a large number of manual workers, who were paid only for time actually worked. The amount of work available varied considerably from week to week during the year. Employment was at a somewhat higher level during the latter months of the year, more particularly in October.

In certain of the classes of employment above considered, salaries are paid on a monthly or semi-monthly basis, and, in some establishments, such as hotels and hospitals, the employees receive board and lodging in addition to cash compensation for services. In order that the data may be comparable with data secured in connection with other surveys, all salaries reported on other than a weekly basis have been reduced to their weekly equivalent, and any additional compensation in the form of subsistence has been excluded from consideration in computing the pay rolls. No index numbers relative to the amount of compensation have been computed, but information of this nature in some detail appears in the press announcements issued each month.

Building Statistics. — The collection of records of building permits granted in municipalities in Massachusetts was first undertaken in 1919, and quarterly reports were then received from 36 cities. The number of municipalities reporting has since been increased to 55 [1] (including all of the 39 cities and 16 of the larger towns). During a period of seven years, 1927 to 1933, monthly reports have been received from these 55 municipalities, and the records cover approximately 90 per cent of the building operations in the State, exclusive of State and Federal buildings, the permits for which are not included in the records of municipalities.

The questionnaire used calls for the number of applications filed for permits to build, the value represented thereby, classified by type of structure and intended use, and the number of family accommodations to be provided, classified by type of residence. Mimeographed summaries of the returns are issued each month immediately following the month to which these statistics relate.

The estimated cost of prospective building in the 55 municipalities for each of the seven years 1927–1933, inclusive, are presented in Table 16. The total number of buildings for all classes of projects in 1933 was less by 7.5 per cent than in 1932,

[1] A list of the 55 cities and towns covered by this monthly survey follows:

39 Cities

Attleboro	Fall River	Lowell	Newton	Somerville
Beverly	Fitchburg	Lynn	North Adams	Springfield
Boston	Gardner	Malden	Northampton	Taunton
Brockton	Gloucester	Marlborough	Peabody	Waltham
Cambridge	Haverhill	Medford	Pittsfield	Westfield
Chelsea	Holyoke	Melrose	Quincy	Woburn
Chicopee	Lawrence	New Bedford	Revere	Worcester
Everett	Leominster	Newburyport	Salem	

16 Towns

Arlington	Brookline	Milton	Plymouth	Wellesley
Belmont	Dedham	Needham	Saugus	West Springfield
Braintree	Framingham	Norwood	Watertown	Winchester
				Winthrop

and the value was less by 22.7 per cent. For each of the three classes of projects the respective decreases in number and value were: new residential building, number, 1.1 per cent, and value, 2.9 per cent; new non-residential building, 18.4 per cent, and 52.2 per cent; and additions, alterations, and repairs, 4.4 per cent, and 8.5 per cent. It will thus be seen that although new residential construction held up well, there was a marked decline in the amount of the new non-residential building in 1933, and also somewhat less repair work.

Table 16. — Number and Estimated Cost of Buildings in 55 Municipalities in Massachusetts, 1927–1933: By Classes of Projects [1]

Number and Cost and Years	New Residential Building	New Non-residential Building	Additions, Alterations, and Repairs	Totals — All Classes of Projects
		Number of Buildings		
1933	1,786	4,188	13,495	19,469
1932	1,806	5,134	14,115	21,055
1931	4,587	8,392	16,210	29,189
1930	4,931	9,615	16,417	30,963
1929	6,759	12,039	17,607	36,405
1928	10,580	12,967	17,184	40,731
1927	11,418	14,231	18,666	44,315
		Estimated Cost		
1933	$9,513,475	$5,646,159	$9,859,614	$25,019,248
1932	9,797,266	11,800,136	10,771,930	32,369,332
1931	32,956,935	38,495,601	14,240,473	85,693,009
1930	40,146,313	45,173,157	22,033,838	107,353,308
1929	69,936,017	53,945,280	29,774,203	153,655,500
1928	96,878,609	52,047,563	22,122,372	171,048,544
1927	101,959,226	51,765,595	27,574,615	181,299,436

[1] Annual summaries of the data in detail for the individual municipalities have been issued in mimeographed form.

Comparisons with years prior to 1932 show very clearly the decline in recent years in the construction industry in Massachusetts, particularly new construction. For example, — the number of new residential buildings planned in 1933 was 1,786, as compared with 11,418 in 1927; the corresponding values were $9,513,475 and $101,959,226. The number of new non-residential buildings was 4,188 in 1933, and 14,231 in 1927; the corresponding values were $5,646,159 and $51,765,595.

Of the 1,786 dwellings planned in 1933, 1,708, or 95.6 per cent, were one-family dwellings, and 58, or 3.3 per cent, were two-family dwellings. The remaining 1.1 per cent comprised four multi-family dwellings, four dwellings and stores combined, and 12 non-housekeeping dwellings. In recent years there has been a very marked decline in the number of multi-family houses erected in the 55 municipalities, from a maximum of 917 dwellings, providing 6,051 family accommodations in 1927, to four dwellings, providing 15 family accommodations in 1933.

Of the estimated cost of all kinds of dwellings ($9,513,475), $8,962,000, or 94.2 per cent, represented one-family dwellings; $364,800, or 3.8 per cent, represented two-family dwellings; $91,675, or 1.0 per cent, represented non-housekeeping dwellings; $70,500, or 0.7 per cent, dwellings and stores combined; and the remaining $24,500 or 0.3 per cent, multi-family dwellings.

In Table 17 data are presented, showing, by classes of structures, the number of new residential buildings for which permits to build were granted, the estimated cost of such buildings, and the number of family accommodations to be provided in the several different classes of dwellings; and for non-residential buildings, the number of buildings to be erected, the estimated cost of such buildings, and the number and estimated cost of additions, alterations, and repairs.

Of the 1,862 family accommodations provided, 1,708, or 91.7 per cent, were in one-family houses; 116, or 6.2 per cent, were in two-family houses; 15, or 0.8 per cent, were in multi-family houses; and the remaining 23 were in dwellings and stores combined. It will be noted that only 12 non-housekeeping dwellings were planned, at an estimated cost of $91,675.

In the 55 municipalities combined the total number of buildings planned in 1933 was 4,188, and the value represented by all classes of structures was $5,646,159. The seven outstanding groups were: five institutional buildings, to cost $889,937; 2,599 private garages, $866,236; nine public buildings, including libraries and museums, $618,183; 87 factories, bakeries, ice plants, greenhouses, laundries, and other workshops, $548,165; 169 stores, restaurants, and other mercantile estab-

lishments, $466,410; 60 amusement and recreation places (including club buildings without bedrooms), $445,117; and 120 storage warehouses, coal pockets, lumber sheds, etc., $421,685. These seven groups together represented $4,255,733, or 73.6 per cent, of the total cost of new non-residential buildings reported in the group of 55 municipalities.

The estimated cost of additions, alterations, and repairs in 1933, represented by 13,495 permits, amounted to $9,859,614. Of this total value, nearly two million dollars was represented by eight large individual projects coming under this classification.

Table 17. — Summary of Prospective Building in 55 Municipalities in Massachusetts during the Year 1933: By Classes of Structures

1 — New Residential Buildings

Classes of Structures	Number of Buildings	Estimated Cost	Number of Family Accommodations
Housekeeping dwellings:			
One-family dwellings	1,708	$8,962,000	1,708
Two-family dwellings	58	364,800	116
One-family and two-family dwellings with stores or shops therewith	3	20,500	3
Multi-family dwellings (three or more families)	4	24,500	15
Multi-family dwellings with stores or shops therewith	1	50,000	20
Non-housekeeping dwellings:			
Bachelor apartments, dormitories, club and association buildings with bedrooms	6	44,175	–
Hotels	–	–	–
Lodging houses and other non-housekeeping dwellings	6	47,500	–
Total — New residential buildings	*1,786*	*$9,513,475*	*1,862*

2 — New Non-Residential Buildings, and Additions, Alterations, and Repairs

Classes of Structures	Number of Buildings	Estimated Cost	Rank on Basis of Cost
New non-residential buildings:			
Amusement and recreation places (including club buildings without bedrooms)	60	$445,117	6
Churches, chapels and parish houses	8	304,000	9
Factories, bakeries, ice-plants, greenhouses, laundries, and other workshops	87	548,165	4
Garages, public	24	78,500	13
Garages, private	2,599	866,236	2
Gasoline and service stations	167	340,535	8
Institutional buildings	5	889,937	1
Office buildings, including banks	35	127,036	12
Public buildings, including libraries and museums	9	618,183	3
Public works and utilities	13	259,725	10
Schools, grade and high (public and private)	3	22,300	14
Sheds, poultry houses, and other minor outbuildings	822	235,787	11
Storage warehouses, coal pockets, lumber sheds, etc.	120	421,685	7
Stores, restaurants, and other mercantile buildings	169	466,410	5
All other non-residential buildings	67	22,543	–
Totals — New non-residential buildings	*4,188*	*$5,646,159*	–
Additions, alterations, and repairs	*13,495*	*$9,859,614*	–

Information Service

During the past year the number of inquiries relative to labor and industrial matters received in this Division has increased greatly. A considerable part of the additional work since May, 1933, has resulted from the demand for information for use in the formulation of industrial codes.

The reference library, maintained primarily for the use of the officials of the Department, is also used extensively by the general public. Reference material is so arranged that it is readily accessible. A librarian and two assistants devote full time to this work and assist in answering inquiries addressed to the Department.

The library now comprises 3,550 bound volumes of official and unofficial reports and reference books, and numerous pamphlets, and mimeographed reports on industrial subjects. There are received currently 13 daily newspapers, 28 quarterlies, 188 monthlies, 31 weeklies and 6 semi-monthly publications, the most of which are contributed on an exchange basis by Federal and State Labor Departments, trade unions, and private industrial research organizations.

Material bearing on the work of the Department is clipped from periodicals, pamphlets, reports and newspapers as received, or is indexed for future reference. Clippings are distributed daily among the members of the staff, who are thus advised as to industrial developments and conditions in the respective fields to which their work relates. "Scrap books" containing articles and clippings on various topics are prepared, and are of much assistance to the departmental officials in answering inquiries relative to industrial matters of current interest.

The work of the library has materially increased as a result of numerous requests for information relative to the National Recovery Administration, the N. R. A. codes, emergency relief and related matters, rendering it necessary to assign an additional clerk to the library personnel. Other subjects of inquiry which were of special interest were: employment and unemployment, labor controversies, building operations, hazardous occupations, safety regulations and codes, stabilization of employment, State publicity, collective bargaining, cost of living, uniform labor legislation, business outlook, laws relative to women and minors in industry, workmen's compensation, directories of industrial establishments, resources of small communities, returns of the Federal Census of 1930, history of trade unions, wages and incomes, and use of leisure time.

Since the abolition of the Massachusetts Industrial and Development Commission, many requests for information relative to the industries and business opportunities in Massachusetts formerly answered by that Commission have been referred to the library for attention.

Statistics of Manufactures — 1932

Introductory. — The census of manufactures for the year 1932 was taken by the Division of Statistics during the year 1933. For some years prior to 1930, when the effects of the present industrial depression became evident, reports were received from nearly 10,000 manufacturing concerns each year, but the number of manufacturing establishments in operation in 1932 was reduced to 8,778 and during the year 1932 somewhat over 450 manufacturing establishments in this State definitely went out of business and a large number of others reported that the value of the products for the year was less than $5,000, and, in accordance with the regulations relative to reporting, were not required to furnish a report.

The total number of manufacturing establishments in operation during the year 1932 was 8,778, exclusive of those in which the value of products manufactured during the year was $5,000. The total value of the products manufactured in the 8,778 establishments was $1,521,752,939; the cost of stock and materials used in manufacture was $718,347,675; and the difference between these amounts ($803,405,264) represents the *value added* by the various manufacturing processes. The average number of wage-earners employed during the year was 350,521, or 19.3 per cent less than the corresponding number (434,441) employed during the year 1931.

The total amount paid in wages during the year was $334,358,550, which was less by $139,830,652, or 29.5 per cent, than the amount paid in wages ($474,189,202) during the year 1931. This large decrease in the wage fund distributed was due not only to the decrease in the number of persons employed but also in considerable measure to a reduction in the earnings of those who were actually employed, and accordingly the percentage reduction (29.5) in the amount of wages paid was greater than the percentage reduction (19.3) in the average number of wage earners employed.

Comparisons of the totals for 1932 with those for 1931 show that there were very large decreases in each of the following items: Average number of wage earners employed, 19.3; value of stock and materials used, 29.2; value of products, 29.5 and value added by manufacture, 29.7.

The capital invested in the manufacturing industries in Massachusetts in 1932 was reported as $1,888,244,721, as compared with the corresponding amount ($2,483,589,920) in 1930, showing a decrease in capital invested of $595,345,199, or 24.0 per cent.

The value of goods exported from manufacturing establishments in Massachusetts in 1932 was reported as $29,097,406, as compared with $79,511,515 in 1930, a decrease of $50,414,109, or 63.4 per cent.

On the questionnaire used in 1931 information with reference to capital invested and value of goods exported was not called for and comparisons of these items in 1932 are therefore made with the corresponding items in 1930, instead of 1931.

In order to make public as early as possible the census data for municipalities and the principal industries therein, preliminary tabulations were made and the results were issued in the form of press notices.[1]

[1] This series of press notices included the following:
Nos. 1–39. *Individual Cities.* A separate press notice for each of the 39 cities containing data, by principal industries, for 1932, with comparable data for specified industries for certain prior years.
No. 40. *Summary by Cities.* Totals only for each city, 1932.
No. 41. *General Summary for the State.* Principal data by years, 1915–1932.
No. 42. *Summary by Towns.* Totals only for each town, 1932.
No. 43. *Metropolitan Boston.* Principal data by municipalities, 1932.
No. 44. *Summary for the State by Industries.* Principal data for leading industries, 1932, with comparable data for the years 1920–1932.
No. 45. *Metropolitan Boston.* Principal data by industries, 1932, with comparable data for the years 1922–1932.
Nos. 46–53. *Leading Towns.* A separate press notice for each of the following important industrial towns: Adams, Athol, Easthampton, Framingham, Northbridge, Norwood, Watertown, and West Springfield.

Summary of Principal Data, 1913–1932

All Industries, Combined. — In order to show the general industrial trends in Massachusetts for a series of years, the principal data for all manufacturing industries combined, for the years 1913 to 1932, inclusive, are presented in Table 18. In making comparisons for the several years of the money values presented in this summary, due allowance should be made for price fluctuations from year to year. The *values* of products manufactured do not necessarily represent the relative *volume* of goods produced in the several years.

A chart showing, graphically, the trends of employment, earnings, and real wages of wage-earners in the manufacturing industries and the cost of living in Massachusetts by years, 1913 to 1933,[1] inclusive, appears on page 39, and these trends have been discussed in the text on pages 37 to 40.

[1] For the year 1933 estimates were prepared, based on data obtained in connection with the "Monthly Surveys of Employment and Earnings in *Representative* Manufacturing Establishments." (See Table 1 on page 38).

Table 18. — Principal Data Relative to Manufactures in Massachusetts, All Industries Combined, 1913–1932, Inclusive

Years	Number of Establishments	Capital Invested	Value of Stock and Materials Used	Amount of Wages paid during the Year	Average Number of Wage-earners Employed	Value of Products	Value Added by Manufacture
1913	8,405	$1,345,461,875	$961,778,476	$351,299,706	616,927	$1,658,728,363	$696,949,887
1914	12,013[1]	1,548,960,733	931,383,793	341,309,517	606,698	1,641,373,047	709,989,254
1915	9,707	1,550,080,995	959,662,457	346,243,472	596,348	1,692,445,366	732,782,909
1916	9,829	1,791,050,092	1,354,433,202	447,957,731	682,621	2,349,933,003	995,499,801
1917	9,865	2,239,848,630	1,782,440,354	537,144,629	708,421	3,020,557,545	1,238,117,191
1918	9,695	2,510,730,295	2,249,822,722	679,401,273	719,210	3,851,346,215	1,601,523,493
1919	11,906[1]	2,962,108,527	2,260,713,036	766,623,337	713,836	4,011,181,532	1,750,468,496
1920	10,262	2,987,620,867	2,489,237,446	891,176,822	695,832	4,370,276,822	1,881,039,376
1921	9,994[1]	[2]	1,441,035,230	641,360,936	579,071	2,849,413,516	1,408,378,286
1922	10,056	2,822,014,756	1,512,510,105	678,073,968	612,682	3,002,625,958	1,490,115,853
1923	10,519[1]	[2]	1,835,218,349	799,363,111	667,443	3,570,543,265	1,735,324,916
1924	10,174	2,853,590,206	1,629,342,134	711,812,104	589,364	3,126,137,145	1,496,795,011
1925	10,027[1]	[2]	1,794,643,051	716,155,593	591,438	3,426,617,326	1,631,974,275
1926	9,903	2,819,189,700	1,790,611,294	738,208,510	602,343	3,419,814,877	1,629,203,583
1927	10,037[1]	[2]	1,678,812,411	705,929,549	578,068	3,317,851,888	1,639,039,477
1928	9,971	2,735,070,138	1,663,155,564	670,063,291	540,927	3,224,227,651	1,561,072,087
1929	9,872[1]	[2]	1,681,432,788	694,805,312	557,494	3,392,162,237	1,710,729,449
1930	9,586	2,483,589,920	1,333,317,227	573,838,044	481,449	2,676,387,256	1,343,070,029
1931	9,305[1]	[2]	1,015,093,739	474,189,202	434,441	2,157,450,449	1,142,356,710
1932	8,778	1,888,244,721	718,347,675	334,358,550	350,521	1,521,752,939	803,405,264

[1] The Census Manufactures for the years 1914, 1919, 1921, 1923, 1925, 1927, 1929, and 1931 included certain establishments not canvassed in the other years, but these establishments added relatively little to the other items specified.
[2] Not called for on the questionnaire.

Cities. — Principal data having reference to manufactures in each of the 39 cities of the Commonwealth, with totals for the State and for the 316 towns grouped together, are presented in Table 19.

The total value of products manufactured in the 39 cities in 1932 ($1,199,940,025) constituted 78.8 per cent of the aggregate value ($1,521,752,939) of all products manufactured in the Commonwealth in that year, and the average number of wage-earners (265,966) employed in the manufacturing industries in the 39 cities constituted approximately 76 per cent of the average number of wage-earners (350,521) employed in all manufacturing establishments in the State. The total population of the 39 cities (as of April 1, 1930) was 2,940,335, constituting 69.2 per cent of the aggregate population (4,249,614) of the State in that year.

As a manufacturing center, Boston ranked first among the cities of the Commonwealth, and the value of the products manufactured in the city in 1932 was $298,-032,533, constituting approximately 20 per cent of the aggregate value of all products manufactured in the entire State during the year. In order of importance, based on the value of products manufactured in 1932, the twelve leading cities were: Boston, Cambridge, Worcester, Lawrence, Springfield, Everett, Somerville, Lynn, Fall River, New Bedford, Lowell and Brockton.

Table 19. — Principal Data Relative to Manufactures in the 39 Cities in Massachusetts in 1932

Cities	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	**8,778**	**$718,347,675**	**$334,358,550**	**350,521**	**$1,521,752,939**
39 Cities	*7,093*	*560,525,113*	*256,468,116*	*265,966*	*1,199,940,025*
Attleboro	115	5,532,834	3,478,290	3,388	12,870,416
Beverly	40	1,698,374	3,448,045	2,907	7,120,071
Boston	2,284	144,649,486	52,972,079	46,037	298,032,533
Brockton	230	14,485,994	7,670,670	7,989	31,892,459
Cambridge	359	33,909,977	13,662,429	13,875	98,485,092
Chelsea	110	5,996,498	3,810,668	3,803	13,599,045
Chicopee	45	10,922,213	5,229,578	5,029	24,981,954
Everett	109	28,574,384	5,969,823	4,510	50,598,449
Fall River	236	24,598,084	11,941,433	17,326	46,006,042
Fitchburg	91	9,056,752	3,667,541	4,256	16,830,165
Gardner	72	4,384,875	3,002,285	3,299	10,900,448
Gloucester	67	3,782,968	1,444,794	1,544	7,332,770
Haverhill	281	12,133,283	6,135,905	7,119	25,486,837
Holyoke	139	13,710,437	7,653,528	8,465	29,007,084
Lawrence	160	26,815,511	13,148,958	17,239	51,636,495
Leominster	63	3,655,960	2,546,135	3,272	9,569,894
Lowell	209	17,584,610	9,730,171	12,012	35,446,140
Lynn	333	19,738,591	11,709,525	12,630	50,081,533
Malden	102	6,605,556	2,387,905	2,463	15,775,018
Marlborough	26	2,221,189	1,529,021	1,962	4,992,637
Medford	56	2,529,891	956,337	875	4,816,361
Melrose	20	375,308	246,499	212	886,700
New Bedford	199	17,497,280	12,190,694	16,456	39,151,295
Newburyport	39	2,481,628	1,591,587	1,880	5,297,057
Newton	55	3,914,278	1,584,278	1,661	8,736,303
North Adams	41	7,021,931	2,847,012	3,222	12,094,559
Northampton	44	1,654,820	1,607,503	1,697	5,415,499
Peabody	72	8,738,909	5,125,270	4,835	18,824,064
Pittsfield	59	7,370,805	4,090,330	4,738	19,078,178
Quincy	139	7,555,128	7,350,610	4,897	19,192,057
Revere	20	249,589	161,889	151	598,783
Salem	106	7,469,965	4,165,968	4,518	18,416,612
Somerville	140	35,964,326	6,213,558	5,317	50,212,222
Springfield	290	19,553,199	12,041,216	11,211	51,024,815
Taunton	85	5,366,731	2,950,366	3,487	11,325,920
Waltham	68	2,393,868	2,131,649	2,130	7,652,732
Westfield	50	2,069,017	1,089,985	1,221	4,460,035
Woburn	48	3,037,147	1,461,650	1,327	6,566,043
Worcester	491	35,223,717	17,522,932	17,006	75,545,708
316 Towns	*1,685*	*157,822,562*	*77,890,434*	*84,555*	*321,812,914*

Towns. — The total value of products manufactured in the 316 towns in 1932 ($321,812,914) constituted 21.1 per cent of the aggregate value ($1,521,752,939) of all products manufactured in the Commonwealth in that year, and the average number of wage-earners (84,555) employed in the manufacturing industries in

the 316 towns constituted 24.1 per cent of the average number of wage-earners (350,521) employed in all manufacturing establishments in the State. The total population of the 316 towns (as of April 1, 1930) was 1,309,279, and constituted 30.8 per cent of the aggregate population (4,249,614) of the State.

In order of importance, based on the value of products manufactured in 1932, the leading manufacturing towns were: Watertown, Braintree, Walpole, Norwood, Southbridge, Framingham, Easthampton, Andover, West Springfield, and Webster.

Table 20. — Principal Data Relative to Manufactures in 316 Towns in Massachusetts, 1932

Town	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	**8,778**	**$718,347,675**	**$334,358,550**	**350,521**	**$1,521,752,939**
39 Cities	*7,093*	*560,525,113*	*256,468,116*	*265,966*	*1,199,940,025*
316 Towns[1]	*1,685*	*157,822,562*	*77,890,434*	*84,555*	*321,812,914*
Abington	14	1,208,516	589,937	611	2,604,966
Acton	6	438,842	116,221	121	777,072
Adams	21	2,173,063	1,258,787	1,673	4,253,135
Amesbury	28	1,730,700	1,230,801	1,385	4,221,697
Amherst	10	132,663	82,877	77	267,397
Andover	13	3,651,118	1,626,646	1,896	7,427,460
Arlington	25	325,552	149,384	124	662,895
Ashburnham	6	230,223	242,328	259	598,401
Athol	34	2,172,448	1,278,071	1,614	4,818,445
Ayer	9	22,540	36,703	35	93,991
Barnstable	5	30,448	37,040	30	145,525
Belmont	4	10,690	17,140	23	42,558
Billerica	9	2,082,743	1,226,542	1,009	4,002,218
Braintree	22	10,103,417	1,067,080	1,054	11,763,071
Bridgewater	12	2,126,640	830,849	783	3,275,851
Brookline	15	398,721	207,134	246	942,998
Canton	21	2,434,923	951,156	1,053	4,809,740
Chelmsford	8	260,460	449,067	393	1,247,841
Chester	3	65,680	78,587	73	302,442
Clinton	16	1,720,224	1,171,740	1,405	4,258,237
Concord	13	178,062	125,718	134	384,479
Danvers	18	604,698	351,097	419	1,376,604
Dedham	10	102,615	95,218	78	251,326
Deerfield	8	210,024	81,373	57	380,966
Dudley	8	1,782,641	966,335	1,035	3,314,741
East Bridgewater	6	157,540	145,334	126	556,211
Easthampton	16	5,627,054	1,506,777	1,696	8,144,988
Easton	7	704,407	287,408	362	1,497,287
Foxborough	7	331,157	563,914	430	1,670,533
Framingham	37	4,467,735	2,375,212	2,251	8,840,409
Franklin	21	1,405,562	595,497	580	2,772,684
Grafton	7	746,051	552,520	772	1,527,759
Great Barrington	9	525,633	418,386	498	1,345,028
Greenfield	35	1,004,070	875,559	963	3,147,319
Hingham	3	13,456	17,357	15	51,983
Holbrook	5	589,652	225,837	299	1,024,390
Hudson	25	2,041,782	1,605,255	1,909	5,229,250
Kingston	7	464,669	203,433	263	850,647
Lexington	5	102,694	33,412	25	213,082
Manchester	5	25,572	35,404	24	95,945
Mansfield	13	872,156	397,778	430	1,821,289
Marblehead	14	98,482	109,568	136	264,746
Medway	5	267,594	194,154	251	674,272
Merrimac	5	49,496	50,506	58	128,741
Methuen	22	2,227,090	977,787	1,325	3,919,365
Middleborough	19	923,281	367,350	454	1,892,414
Milford	29	1,713,355	770,470	897	3,142,549
Millbury	20	1,723,142	810,699	761	3,149,299
Milton	6	82,678	63,404	43	342,264
Montague	15	1,501,373	1,026,147	1,040	3,352,281
Natick	23	1,166,897	440,286	416	2,120,754
Needham	28	1,114,964	346,352	377	2,159,874
North Andover	7	778,839	696,396	774	1,616,910
North Attleborough	55	1,469,904	1,431,118	1,453	4,153,789
North Brookfield	7	1,565,115	745,569	868	2,973,758
Northbridge	8	2,317,560	1,764,362	2,082	5,119,831
Norton	9	292,939	303,597	330	793,871
Norwood	24	4,640,084	2,521,955	2,033	11,323,670

[1] For 141 towns data cannot be presented without disclosing the operations of individual establishments, and in 85 towns there were no manufacturing establishments coming within the scope of the census canvass; *i.e.*, with product values in excess of $5,000.

Town	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Orange	20	679,619	433,867	510	1,793,826
Oxford	9	474,466	218,438	305	749,553
Palmer	17	1,293,695	901,482	1,311	3,211,589
Plymouth	15	2,658,805	1,106,558	1,238	5,521,208
Randolph	6	362,466	164,954	177	707,160
Reading	16	1,092,535	347,752	282	1,837,063
Rockland	19	962,678	491,981	534	2,267,498
Saugus	10	130,547	74,464	57	289,268
South Hadley	6	586,831	300,769	318	1,301,432
Southbridge	27	3,871,651	3,029,878	3,080	10,800,819
Spencer	14	2,188,340	994,582	998	3,898,412
Stoneham	18	1,024,012	681,217	845	2,365,350
Stoughton	24	2,752,858	1,062,761	1,175	5,498,475
Swampscott	8	51,772	18,678	20	126,650
Templeton	11	414,742	226,647	249	886,552
Townsend	5	292,543	200,564	207	663,066
Uxbridge	7	4,388,031	1,018,432	1,154	6,523,437
Wakefield	29	757,373	483,146	582	1,758,788
Walpole	12	7,732,085	1,487,087	1,126	11,430,937
Ware	15	1,283,730	690,319	895	2,661,558
Wareham	7	167,608	84,153	74	398,895
Warren	7	607,004	310,333	455	1,082,168
Watertown	46	5,466,978	3,917,230	4,299	16,466,826
Webster	20	4,276,270	1,763,297	2,223	6,777,600
Wellesley	7	177,868	169,833	113	461,068
West Springfield	26	3,444,522	1,707,913	1,529	6,897,497
Westborough	12	525,156	239,894	267	1,010,902
Weymouth	19	1,940,573	815,164	937	4,356,253
Whitman	20	2,597,650	1,452,370	1,400	6,733,872
Winchendon	16	1,151,389	726,293	917	2,318,069
Winchester	16	907,320	563,469	482	1,959,027
Winthrop	8	62,713	55,781	42	175,616
All other towns	351	28,289,098	15,424,494	17,226	60,741,232

Metropolitan Boston. —As defined for purposes of the annual census of manufactures in Massachusetts, "Metropolitan Boston" comprises 14 cities and 29 towns included within a radius of about 15 miles from the State House in Boston. Within this area in 1932 were located 4,225 manufacturing establishments, in which products valued at $704,875,376 were manufactured. The average number of wage-earners employed in these establishments during the year was 114,986, and the total amount paid in wages was $125,855,342. The number of manufacturing establishments in Metropolitan Boston in 1932 constituted 48.1 per cent of the total number (8,778) in the entire State: the value of all products manufactured constituted 46.3 per cent of the total value of all products manufactured in the State; and the number of wage-earners was 32.8 per cent of the total number employed in all manufacturing establishments in that year.

Principal data relative to manufactures in Metropolitan Boston for the years 1922 to 1932, inclusive, are presented in Table 21; for each of the 14 cities and 29 towns, in Table 22; and for the leading industries in Table 23.

Table 21. — Principal Data Relative to Manufactures in Metropolitan Boston,[1] 1922–1932

Years	Number of Establishments	Capital Invested	Value of Stock and Materials Used	Amount of Wages paid during the Year	Average Number of Wage-earners Employed	Value of Products
	All Industries					
1922	4,482	$804,668,324	$537,911,241	$210,657,440	178,343	$1,070,493,317
1923	4,740	[2]	620,031,648	245,640,825	193,000	1,232,206,787
1924	4,561	849,235,200	584,512,038	230,727,844	178,487	1,148,260,013
1925	4,511	[2]	606,378,433	231,857,192	175,801	1,235,875,285
1926	4,577	851,797,589	639,566,767	245,916,443	184,814	1,272,959,199
1927	4,755	[2]	633,003,950	237,708,229	178,316	1,289,801,723
1928	4,713	897,124,478	648,665,366	235,017,427	174,522	1,278,895,983
1929[1]	4,831	[2]	688,277,589	248,419,990	182,780	1,409,136,706
1930	4,652	866,181,625	590,738,808	215,334,364	162,699	1,181,391,542
1931	4,536	[2]	452,641,062	171,567,144	140,074	955,211,023
1932	4,225	674,095,448	337,019,811	125,855,342	114,986	704,875,376

[1] For a list of cities and towns in Metropolitan Boston, see Table 22 on page 73. In 1929 and thereafter, the towns of Norwood, Stoughton, and Walpole were included in this District.
[2] Not called for on the questionnaire.

Table 22. — Principal Data Relative to Manufactures in Metropolitan Boston, 1932: By Cities and Towns

Municipalities	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Metropolitan Boston	**4,225**	**$337,019,811**	**$125,855,342**	**114,986**	**$704,875,376**
The 14 Cities	*3,843*	*295,494,027*	*110,618,899*	*99,888*	*625,232,871*
Boston	2,284	144,649,486	52,972,079	46,037	298,032,533
Cambridge	359	33,909,977	13,662,429	13,875	98,485,092
Chelsea	110	5,996,498	3,810,668	3,803	13,599,045
Everett	109	28,574,384	5,969,823	4,510	50,598,449
Lynn	333	19,738,591	11,709,525	12,630	50,081,533
Malden	102	6,605,556	2,387,905	2,463	15,775,018
Medford	56	2,529,891	956,337	875	4,816,361
Melrose	20	375,308	246,499	212	886,700
Newton	55	3,914,278	1,584,278	1,661	8,736,303
Quincy	139	7,555,128	7,350,610	4,897	19,192,057
Revere	20	249,589	161,889	151	598,783
Somerville	140	35,964,326	6,213,558	5,317	50,212,222
Waltham	68	2,393,868	2,131,649	2,130	7,652,732
Woburn	48	3,037,147	1,461,650	1,327	6,566,043
The 29 Towns	*382*	*41,525,784*	*15,236,443*	*15,098*	*79,642,505*
Arlington	25	325,552	149,384	124	662,895
Belmont	4	10,690	17,140	23	42,558
Braintree	22	10,103,417	1,067,080	1,054	11,763,071
Brookline	15	398,721	207,134	246	942,998
Canton	21	2,434,923	951,156	1,053	4,809,740
Dedham	10	102,615	95,218	78	251,326
Hingham	3	13,456	17,357	15	51,983
Lexington	5	102,694	33,412	25	213,082
Milton	6	82,678	63,404	43	342,264
Needham	28	1,114,964	346,352	377	2,159,874
Norwood	24	4,640,084	2,521,955	2,033	11,323,670
Reading	16	1,092,535	347,752	282	1,837,063
Saugus	10	130,547	74,464	57	289,268
Stoneham	18	1,024,012	681,217	845	2,365,350
Stoughton	24	2,752,858	1,062,761	1,175	5,498,475
Swampscott	8	51,772	18,678	20	126,650
Wakefield	29	757,373	483,146	582	1,758,788
Walpole	12	7,732,085	1,487,087	1,126	11,430,937
Watertown	46	5,466,978	3,917,230	4,299	16,466,826
Wellesley	7	177,868	169,833	113	461,068
Weymouth	19	1,940,573	815,164	937	4,356,253
Winchester	16	907,320	563,469	482	1,959,027
Winthrop	8	62,713	55,781	42	175,616
6 other towns[1]	6	99,356	90,269	67	353,723

[1] Includes three towns (Cohasset, Hull, and Nahant) in which there were no manufacturing establishments, and three towns (Dover, Weston, and Westwood) for which data cannot be shown separately without disclosing the operations of individual establishments.

Table 23. — Principal Data Relative to the Leading Manufacturing Industries in Metropolitan Boston, 1932

Principal Industries (Arranged in the order of value of products)	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Metropolitan Boston	**4,225**	**$337,019,811**	**$125,855,342**	**114,986**	**$704,875,376**
Printing and publishing	432	15,304,122	13,899,616	8,163	56,037,967
Boots and shoes, other than rubber	128	18,032,581	12,040,111	13,934	38,907,542
Bread and other bakery products	481	15,839,590	6,488,760	5,676	38,497,285
Clothing, men's and women's	376	17,693,350	6,908,107	7,583	33,309,552
Electrical machinery, apparatus, and supplies [1]	56	7,689,776	5,517,609	5,655	25,594,777
Meat packing, wholesale	19	19,354,890	1,963,979	1,690	24,660,734
Confectionery	93	10,888,842	3,440,029	4,785	20,924,878
Boot and shoe cut stock and findings, not made in boot and shoe factories	118	12,646,509	2,062,985	2,161	18,074,588
Rubber goods, other than tires, inner tubes, and boots and shoes	38	7,015,967	2,781,611	3,195	15,710,537
Foundry and machine-shop products, not elsewhere classified	161	5,698,605	4,126,658	3,447	15,485,087
Coffee and spice, roasting and grinding	22	9,110,769	594,060	515	11,609,788
Knit goods	42	6,366,396	1,957,079	2,472	10,926,903
Boxes, paper	48	5,720,370	2,199,034	2,441	10,257,107
Leather: Tanned, curried, and finished	31	5,091,738	2,583,119	2,372	10,136,326
Other industries [2]	2,180	180,566,306	59,292,585	50,897	374,742,305

[1] Includes Radio apparatus, which, separately tabulated, registered 9 establishments with product value of $2,112,593.

[2] Includes data for all industries for which the value of products in 1932 was less than $10,000,000 as well as the industries, Soap; sugar refining; petroleum refining; shipbuilding; cutlery and edge tools; and motor vehicles, the data for which cannot be given separately without disclosing the operations of individual establishments.

Counties. — Principal data having reference to manufactures in each of the 14 counties of the State in 1932 are presented in Table 24. Based on the value of products, Middlesex County ranked first among the counties with value of products amounting to $346,764,106, or 22.8 per cent of the total for the State. Suffolk County was a close second, with a value of products amounting to $312,405,977, or 20.5 per cent. The other counties in order of rank were: Essex, Worcester, Hampden, Bristol, Norfolk, Plymouth, Berkshire, Hampshire, Franklin, Barnstable, Nantucket, and Dukes.

Table 24. — Principal Data Relative to the Manufacturing Industries in Massachusetts — By Counties, 1932

Counties	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	**8,778**	**$718,347,675**	**$334,358,550**	**350,521**	**$1,521,752,939**
Barnstable	19	138,122	81,516	75	338,471
Berkshire	165	19,115,969	10,113,936	11,697	42,342,059
Bristol	750	58,641,970	34,700,895	44,903	123,113,517
Dukes	3	5,563	9,435	6	30,641
Essex	1,257	93,495,261	52,660,948	59,495	206,804,864
Franklin	101	5,605,249	3,132,974	3,315	12,734,966
Hampden	592	53,711,358	30,398,774	30,953	126,750,820
Hampshire	108	9,397,631	4,298,185	4,814	18,137,780
Middlesex	1,543	165,719,067	62,116,448	63,623	346,764,106
Nantucket	4	24,953	31,068	18	103,163
Norfolk	398	44,867,186	18,889,931	15,899	85,249,955
Plymouth	377	27,094,048	13,526,845	14,179	58,491,869
Suffolk	2,422	150,958,286	57,000,417	50,033	312,405,977
Worcester	1,039	89,573,012	47,397,178	51,511	188,484,751

Principal Industries. — A summary of the data relative to the principal manufacturing industries in Massachusetts in 1932, arranged in the order of value of products in 1932, is presented in Table 25. The total value of products of the 17 principal industries specified was $861,850,723, and constituted 56.6 per cent of the aggregate value of all products ($1,521,752,939) manufactured in Massachusetts during the year. Comparable data for each of these principal industries for a series of years, 1920 to 1932, inclusive, are presented in Table 26.

Table 25. — Summary of Data Relative to the Principal Manufacturing Industries in Massachusetts, 1932

Principal Industries (Arranged in the order of value of products)	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
All Industries	8,778	$718,347,675	$334,358,550	350,521	$1,521,752,939
Boots and shoes, other than rubber [1]	392	60,709,609	36,843,238	43,265	126,222,124
Woolen and worsted goods	116	49,305,061	22,708,245	28,593	87,814,050
Printing and publishing	767	20,617,212	19,667,336	12,022	77,732,521
Cotton goods, excluding cotton small wares	105	30,030,280	22,698,692	32,464	68,040,258
Bread and other bakery products	1,111	25,236,168	10,643,686	9,315	59,488,548
Dyeing and finishing textiles	71	34,010,823	10,377,674	11,118	54,353,966
Electrical machinery, apparatus, and supplies [2]	103	18,228,170	12,254,949	13,571	53,643,578
Clothing, men's and women's, including work clothing	474	23,706,198	9,564,654	11,874	44,324,186
Paper and wood pulp	75	19,304,723	8,901,610	9,382	39,335,415
Sundry and machine-shop products	388	11,685,917	12,556,361	10,179	36,472,363
Gas, manufactured, illuminating and heating	34	10,491,835	4,405,548	2,670	36,386,578
Leather: Tanned, curried, and finished	101	19,253,879	8,651,070	7,932	35,608,824
Boot and shoe cut stock and findings, not made in boot and shoe factories	334	22,829,247	5,161,390	5,817	35,280,809
Rubber goods, including rubber tires and inner tubes [3]	58	14,840,426	5,778,272	6,347	33,351,480
Meat packing, wholesale	29	22,994,226	2,547,086	2,165	29,408,410
Confectionery	124	11,628,850	3,769,139	5,183	22,227,447
Knit goods	66	11,560,929	5,306,107	6,772	22,160,166
All other industries [4]	4,430	311,914,122	132,523,493	131,852	659,902,216

[1] For Boot and shoe cut stock and findings, not made in boot and shoe factories, see page 76.
[2] Includes Radio apparatus. This industry, separately tabulated in 1932, would register a product value of $6,812,893.
[3] Exclusive of rubber boots and shoes.
[4] Includes data for all industries for which the value of products in 1932 was less than $20,000,000 as well as the industries, Soap; sugar refining; and petroleum refining, the data for which cannot be given separately without disclosing the operations of individual establishments.

The total value of products of the 17 principal industries specified was $861,850,723, and constituted 56.6 per cent of the aggregate value of products ($1,521,752,939) manufactured in Massachusetts during the year. Data for each of these principal industries for the series of years 1920 to 1932, inclusive, are presented in table 26.

Table 26. — Summary of Data Relative to Manufactures in Massachusetts: By Principal Industries, 1920–1932 [1]

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
All Industries					
1920	10,262	$2,489,237,446	$891,176,822	695,832	$4,370,276,822
1921	9,994	1,441,035,230	641,360,936	579,071	2,849,413,516
1922	10,056	1,512,510,105	678,073,968	612,682	3,002,625,958
1923	10,519	1,835,218,349	799,363,111	667,443	3,570,543,265
1924	10,174	1,629,342,134	711,812,104	589,364	3,126,137,145
1925	10,027	1,794,643,051	716,155,593	591,438	3,426,617,326
1926	9,903	1,790,611,294	738,208,510	602,343	3,419,814,877
1927	10,037	1,678,812,411	705,929,549	578,068	3,317,851,888
1928	9,971	1,663,155,564	670,063,291	540,927	3,224,227,651
1929	9,872	1,681,432,788	694,805,312	557,494	3,392,162,237
1930	9,586	1,333,317,227	573,838,044	481,449	2,676,387,256
1931	9,305	1,015,093,739	474,189,202	434,441	2,157,450,449
1932	8,778	718,347,675	334,358,550	350,521	1,521,752,939
Boots and Shoes, Other than Rubber					
1920	518	266,378,621	85,820,835	69,273	443,322,965
1921	543	147,350,442	76,395,714	64,494	285,102,006
1922	580	139,281,827	80,334,802	70,294	276,232,880
1923	595	146,720,772	82,916,416	69,397	290,674,403
1924	567	120,976,254	72,462,742	62,969	246,897,275
1925	537	119,764,801	65,496,971	57,405	240,943,504
1926	508	121,665,003	70,444,841	59,738	244,177,601
1927	469	120,353,570	65,282,193	55,986	237,516,655
1928	453	126,778,246	63,871,277	55,478	238,884,158
1929	436	124,024,880	64,205,152	55,093	241,587,864
1930	420	95,336,095	50,896,764	49,105	185,072,323
1931	397	79,519,951	45,679,225	47,664	160,666,398
1932	392	60,709,609	36,843,238	43,265	126,222,124

[1] In making comparisons for the several years of the money values presented in this summary, due allowance should be made for price fluctuations from year to year. The *values* of products manufactured do not necessarily represent the relative *volume* of goods produced in the several years.

Table 26. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Boot and Shoe Cut Stock and Findings (Not made in boot and shoe factories)					
1920	393	$66,974,420	$9,186,674	8,128	$90,362,987
1921	381	45,477,555	7,133,009	6,403	63,837,523
1922	420	49,638,963	7,817,846	7,406	70,352,803
1923	417	47,772,107	7,921,949	7,349	68,839,110
1924	381	42,123,956	7,269,733	6,536	60,337,334
1925	407	45,012,775	7,995,409	6,991	66,077,971
1926	361	52,775,368	8,973,167	7,806	73,795,554
1927	393	60,126,412	8,830,087	7,763	84,124,051
1928	364	63,242,637	8,286,694	7,615	83,979,422
1929	361	56,167,055	8,391,863	7,658	78,200,992
1930	349	42,855,725	7,259,574	6,917	59,345,418
1931	351	31,775,145	6,363,401	6,463	46,348,503
1932	334	22,829,247	5,161,390	5,817	35,280,809
Woolen and Worsted Goods					
1920	186	218,013,382	66,844,648	51,689	344,532,434
1921	180	142,163,532	63,230,393	56,644	262,633,663
1922	189	137,145,274	61,391,289	55,886	266,054,554
1923	186	202,207,973	76,189,812	64,842	352,136,045
1924	190	171,426,748	65,563,390	54,277	280,002,109
1925	187	200,289,254	64,931,507	54,876	309,528,290
1926	180	187,787,996	61,952,399	54,638	295,175,084
1927	174	163,149,995	58,035,387	51,064	268,835,806
1928	171	145,440,485	51,882,279	45,248	234,206,586
1929	156	146,020,898	52,304,583	45,673	242,898,460
1930	145	92,027,443	39,245,500	35,104	156,943,782
1931	128	86,659,519	37,436,905	37,221	147,701,378
1932	116	49,305,061	22,708,245	28,593	87,814,050
Printing and Publishing					
1920	775	32,873,508	19,245,705	12,969	83,897,559
1921	890[1]	35,301,875	19,841,638	12,764	106,850,504
1922	685	30,445,672	21,052,626	13,466	85,697,580
1923	917[1]	33,835,083	23,289,201	14,238	117,436,792
1924	756	30,323,839	23,701,120	13,908	93,698,513
1925	951[1]	34,561,352	24,609,306	14,231	125,176,183
1926	748	34,035,042	25,436,679	14,713	107,283,046
1927	1,022[1]	35,368,221	25,482,123	14,382	131,975,238
1928	821	34,795,664	26,594,305	14,634	112,243,252
1929	1,000[1]	35,245,669	28,115,167	15,198	140,481,332
1930	799	32,050,850	27,077,682	15,051	111,526,855
1931	963[1]	26,416,073	23,456,179	13,224	111,395,181
1932	767	20,617,212	19,667,336	12,022	77,732,521
Cotton Goods, excluding Cotton Small Wares					
1920	191	415,501,520	130,905,309	113,145	686,571,606
1921	182	153,725,300	96,547,054	106,337	313,829,605
1922	187	185,934,180	103,016,087	111,165	366,030,361
1923	191	223,569,567	115,080,841	113,707	415,922,838
1924	178	175,089,768	86,795,081	89,095	296,831,284
1925	178	200,972,528	91,812,779	96,182	345,864,097
1926	173	166,821,709	88,865,550	91,466	292,063,441
1927	163	145,630,938	88,089,667	90,875	284,706,007
1928	153	120,815,771	61,215,058	65,192	216,997,848
1929	135	125,441,636	65,556,859	70,788	233,618,009
1930	134	79,531,622	47,363,957	53,745	151,834,379
1931	120	53,329,684	38,868,889	46,990	114,707,445
1932	105	30,030,280	22,698,692	32,464	68,040,258
Bread and Other Bakery Products					
1920	1,083	47,216,099	11,132,441	8,698	76,825,786
1921	1,125	33,596,767	11,328,144	8,852	63,972,784
1922	1,026	30,666,836	10,557,076	9,185	60,836,491
1923	1,099	32,379,305	11,974,120	9,288	64,733,168
1924	1,072	32,793,242	12,022,863	9,200	65,723,363
1925	1,031	36,517,214	11,390,333	8,429	68,845,944
1926	1,090	38,573,698	11,558,473	8,697	74,014,253
1927	1,044	37,101,802	11,028,342	8,473	73,706,221
1928	1,108	38,297,898	11,351,600	8,770	76,006,262
1929	1,077	39,664,130	13,700,195	10,413	80,270,302
1930	1,132	36,656,100	13,036,847	10,041	78,462,469
1931	1,119	29,587,755	12,753,731	10,079	67,805,420
1932	1,111	25,236,168	10,643,686	9,315	59,488,548

[1] The census for the years 1921, 1923, 1925, 1927, 1929, and 1931 included certain publishing establishments not canvassed in the other years specified, and data for these years, therefore, are not strictly comparable with corresponding data for the other years specified.

Table 26. -- Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
		Dying and Finishing Textiles			
1920	66	$63,246,501	$18,872,562	16,292	$106,264,963
1921	63	52,664,331	14,142,174	13,318	92,953,438
1922	65	51,913,956	14,067,567	13,332	84,826,219
1923	75	59,282,801	16,099,333	14,074	101,824,142
1924	66	47,812,253	14,145,036	12,764	76,968,958
1925	65	87,585,678	16,098,858	13,872	119,109,701
1926	65	69,357,890	15,974,822	13,772	102,814,471
1927	68	51,434,428	16,229,352	13,826	84,459,666
1928	66	52,048,921	15,738,360	13,629	83,707,199
1929	67	53,034,427	16,853,664	14,450	93,148,770
1930	65	50,849,268	14,838,020	13,081	75,853,910
1931	70	47,794,925	14,926,387	13,060	76,819,045
1932	71	34,010,823	10,377,674	11,118	54,353,966
		Electrical Machinery, Apparatus, and Supplies			
1920	105	48,894,162	38,289,830	28,561	126,861,130
1921	105	27,951,204	20,348,264	17,635	72,047,824
1922	116	33,043,527	24,930,824	19,064	93,083,923
1923	130	43,889,975	34,482,705	26,350	117,575,926
1924	130	48,721,722	33,227,577	24,523	129,905,665
1925	116	43,794,331	35,109,393	25,065	147,056,901
1926	128	64,534,132	39,142,134	27,899	177,148,280
1927	122	42,197,890	33,903,793	24,759	139,348,725
1928	120	56,874,825	33,972,583	24,788	156,081,762
1929	106	64,323,352	41,011,734	28,844	184,786,944
1930	111	45,095,735	31,948,815	24,217	120,334,662
1931 [1]	102	31,777,549	22,751,703	20,055	104,325,847
1932 [1]	103	18,228,170	12,254,949	13,571	53,643,578
		Clothing, Men's and Women's, Including Work Clothing			
1920	460	41,457,483	14,343,454	12,129	73,533,991
1921	443	26,471,823	11,219,297	10,444	50,262,173
1922	442	28,925,106	12,763,975	11,519	53,946,067
1923	511	38,703,840	14,981,950	12,727	70,819,700
1924	486	34,899,421	13,405,639	11,549	63,904,828
1925	439	33,158,905	12,023,478	10,665	61,187,773
1926	483	36,284,848	14,263,815	12,115	68,554,055
1927	472	37,713,123	15,131,382	13,163	72,296,725
1928	500	37,087,769	14,354,468	13,310	69,021,128
1929	500	41,841,471	15,087,955	13,174	78,174,045
1930	489	35,613,636	14,398,266	13,540	65,951,764
1931	487	31,017,083	13,216,215	14,052	59,920,324
1932	474	23,706,198	9,564,654	11,874	44,324,186
		Paper and Wood Pulp			
1920	82	89,158,276	21,633,105	15,215	145,017,866
1921	81	40,614,356	12,592,648	12,427	62,865,216
1922	79	49,356,524	15,004,725	13,490	84,440,050
1923	82	57,601,310	17,085,424	13,324	93,641,621
1924	81	53,194,877	17,047,879	13,423	90,146,594
1925	84	54,854,405	16,424,005	12,915	90,126,831
1926	83	56,818,516	17,467,461	13,205	98,598,943
1927	83	51,815,477	15,904,292	12,368	93,177,974
1928	84	53,105,186	16,420,703	12,602	93,939,888
1929	76	50,091,469	16,648,893	12,361	95,084,573
1930	76	41,204,938	14,881,473	11,603	78,339,273
1931	77	27,898,672	11,960,645	10,652	58,148,375
1932	75	19,304,723	8,901,610	9,382	39,335,415
		Foundry and Machine-Shop Products			
1920	569	68,534,988	52,459,471	34,473	166,340,007
1921	515	35,452,972	26,755,815	20,021	112,172,802
1922	541	29,172,980	27,306,697	20,837	86,448,581
1923	553	38,728,025	36,267,289	24,660	114,929,133
1924	539	37,993,215	32,473,734	22,414	106,461,283
1925	500	31,046,164	28,919,791	19,541	90,638,434
1926	502	34,479,344	30,851,687	20,419	99,321,009
1927	496	30,759,703	30,059,274	19,898	94,149,409
1928	475	32,606,432	30,447,463	19,803	99,613,068
1929	465	36,893,962	32,969,609	21,243	114,965,036
1930	442	28,219,034	27,582,822	18,492	88,162,402
1931	414	17,806,400	18,841,627	14,748	60,143,267
1932	388	11,685,917	12,556,361	10,179	36,472,363

[1] Includes Radio apparatus, heretofore tabulated with this industry and retained here for purposes of comparison. Presented separately, in 1932, Radio apparatus would register 21 establishments with product value of $6,812,893.

Table 26. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Gas, Manufactured, Illuminating and Heating					
1920	51	$12,169,919	$3,718,543	2,427	$31,356,276
1921	47	13,679,896	4,324,527	2,524	33,808,668
1922	47	13,116,729	4,436,757	2,825	34,034,561
1923	49	15,150,715	6,342,914	4,146	37,188,227
1924	48	11,781,221	5,325,159	3,405	34,245,470
1925	46	13,888,004	6,205,743	4,229	36,659,265
1926	45	10,086,179	4,489,990	2,789 [1]	31,806,393
1927	41	16,201,703	6,046,546	4,079	38,657,688
1928	40	13,729,991	5,609,403	3,437 [1]	37,469,887
1929	39	15,835,388	6,516,333	4,096	41,264,782
1930	37	11,849,481	5,800,474	3,371 [1]	40,193,954
1931	32	13,104,100	5,170,219	3,304	38,598,658
1932	34	10,491,835	4,405,548	2,670 [1]	36,386,578
Leather, Tanned, Curried, and Finished					
1920	132	57,410,060	17,913,018	12,447	88,344,819
1921	119	35,801,421	11,389,125	9,038	61,106,452
1922	122	31,383,055	13,298,797	10,813	57,669,973
1923	122	40,439,335	15,340,403	11,437	71,098,478
1924	123	42,867,178	15,023,961	11,010	70,603,298
1925	118	42,430,939	14,178,183	10,438	70,708,050
1926	123	40,698,690	14,016,402	10,241	66,600,352
1927	115	47,860,959	14,587,638	10,768	77,649,457
1928	124	53,764,692	14,531,789	10,975	82,268,326
1929	113	60,240,934	14,206,501	10,707	88,348,403
1930	107	41,890,582	11,645,166	8,953	63,591,977
1931	98	29,966,431	10,697,504	8,657	50,051,338
1932	101	19,253,879	8,651,070	7,932	35,608,824
Rubber Goods, including Rubber Tires and Inner Tubes [2]					
1920	49	42,001,564	11,779,505	8,130	85,778,471
1921	52	30,349,377	9,005,575	7,847	62,714,484
1922	61	37,096,491	11,924,464	10,197	75,829,765
1923	59	48,409,783	14,698,488	11,388	84,098,920
1924	58	47,010,344	13,393,684	10,406	84,681,207
1925	52	61,611,753	13,904,175	10,740	108,594,705
1926	56	71,670,965	13,648,767	10,444	110,305,176
1927	64	56,715,715	13,298,241	10,364	97,717,724
1928	68	53,136,600	13,714,866	10,552	89,672,751
1929	62	44,604,202	12,400,228	9,764	76,439,857
1930	65	33,032,734	10,459,597	8,658	62,870,682
1931	60	19,928,837	7,758,324	6,728	46,371,115
1932	58	14,840,426	5,778,272	6,347	33,351,480
Meat Packing, Wholesale					
1920	32	73,125,278	4,868.116	3,436	89,234,029
1921	33	41,052,369	3,798,379	2,986	48,810,846
1922	27	46,193,957	3,490,994	3,153	55,093,617
1923	33	47,128,857	4,604,972	3,651	56,765,176
1924	32	46,832,366	4,679,275	3,506	56,799,375
1925	33	52,620,735	4,121,768	3,292	60,710,531
1926	28	54,604,670	3,759,969	3,000	63,220,783
1927	40	51,139,522	4,127,491	3,191	58,796,506
1928	37	54,604,066	3,855,033	2,988	63,509,485
1929	33	56,599,409	3,572,432	2,594	64,354,688
1930	31	51,030,796	3,435,693	2,530	59,425,738
1931	31	32,764,048	2,871,319	2,123	39,704,308
1932	29	22,994,226	2,547,086	2,165	29,408,410
Confectionery					
1920	152	39,295,866	8,617,406	9,836	61,280,594
1921	146	24,643,965	6,545,314	8,202	42,975,013
1922	144	23,628,231	6,670,030	8,006	41,599,379
1923	149	26,504,012	7,475,548	8,805	48,618,574
1924	141	24,968,335	7,456,716	7,899	45,875,376
1925	134	25,842,869	6,755,486	7,625	49,333,972
1926	147	26,910,860	7,472,929	8,372	50,669,112
1927	148	28,308,227	7,243,925	8,373	49,673,740
1928	153	25,547,674	6,916,799	7,489	46,124,991
1929	144	22,821,300	6,744,576	7,471	43,932,366
1930	144	19,994,216	6,291,556	6,541	37,815,816
1931	127	14,646,330	4,983,946	5,943	30,176,229
1932	124	11,628,850	3,769,139	5,183	22,227,447

[1] Does not include street men.
[2] Exclusive of rubber boots and shoes.

Table 26. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
		Knit Goods			
1920	71	$31,871,942	$10,728,570	10,625	$54,059,574
1921	81	20,251,896	8,969,044	10,497	34,924,807
1922	88	23,801,579	10,467,806	11,663	44,219,560
1923	87	25,923,485	10,605,684	11,652	46,834,545
1924	88	20,450,911	9,443,959	9,863	38,487,391
1925	88	25,902,556	9,715,424	10,551	46,386,519
1926	92	22,362,814	9,512,858	10,088	44,060,059
1927	93	22,315,903	9,339,035	9,660	43,936,724
1928	90	21,070,158	9,162,848	9,092	40,165,755
1929	86	20,401,873	8,945,286	8,817	41,050,135
1930	80	16,981,448	7,878,614	8,133	34,479,056
1931	70	14,997,853	6,765,890	7,637	29,460,966
1932	66	11,560,929	5,306,107	6,772	22,160,166
		Ship and Boat Building, Steel and Wooden, and Repair Work			
1920	43	13,812,531	12,400,243	5,816	31,757,906
1921	39	9,707,538	7,495,008	6,015	22,312,448
1922	39	3,849,721	4,732,473	3,703	10,167,786
1923	39	5,021,050	5,957,599	3,977	14,078,845
1924	39	3,885,897	5,421,364	3,268	12,643,165
1925	41	5,558,093	6,954,277	4,167	14,187,348
1926	37	4,878,883	8,209,632	5,079	14,803,765
1927	38	4,402,476	6,478,876	4,185	14,151,632
1928	35	4,775,415	5,954,352	3,413	13,439,146
1929	40	5,583,995	6,499,543	3,635	16,449,438
1930	40	9,663,618	7,558,162	4,598	19,871,065
1931	35	12,970,551	7,669,775	4,846	27,711,085
1932	32	5,685,947	6,232,299	3,779	14,302,756
		Furniture, including Store and Office Fixtures			
1920	144	12,882,852	9,747,660	7,520	32,094,031
1921	160	10,941,342	6,922,987	6,251	24,039,399
1922	177	11,536,245	8,412,753	7,306	26,994,042
1923	189	14,616,185	9,965,802	8,097	34,691,239
1924	187	15,021,243	10,160,663	7,863	34,609,438
1925	191	16,050,928	10,172,074	7,834	33,638,635
1926	208	16,040,692	11,504,758	8,440	37,530,228
1927	194	16,682,116	11,027,153	8,077	36,796,137
1928	220	16,675,734	11,110,481	8,224	37,464,410
1929	217	19,029,630	11,926,867	8,598	41,921,577
1930	222	13,256,836	9,585,968	7,357	32,057,862
1931	204	10,541,937	7,051,101	6,153	24,143,874
1932	193	6,902,035	4,826,916	4,866	15,923,502
		Textile Machinery and Parts			
1920	107	32,288,692	28,412,882	19,686	81,595,711
1921	127	23,199,148	20,836,446	16,479	67,204,551
1922	124	16,955,862	17,279,848	14,846	52,888,931
1923	137	24,518,360	24,318,310	18,668	69,343,009
1924	129	14,986,290	18,352,490	14,666	50,253,757
1925	123	16,584,208	17,769,454	13,687	51,411,150
1926	130	15,333,814	16,786,043	12,623	47,739,905
1927	119	15,008,418	16,242,087	12,009	46,865,937
1928	119	12,350,981	13,651,765	10,399	39,082,682
1929	111	12,467,673	14,233,661	10,597	41,202,970
1930	109	8,423,447	10,512,566	8,602	27,033,415
1931	102	6,791,520	8,865,356	7,527	24,090,354
1932	101	4,197,545	5,153,252	5,197	13,635,758
		Silk Goods			
1920	22	23,302,010	6,067,423	5,626	33,636,882
1921	23	13,162,836	4,467,028	5,864	23,604,010
1922	25	15,427,762	5,988,741	6,197	28,097,042
1923	24	18,820,913	6,782,643	6,448	33,646,974
1924	25	15,033,466	6,176,952	5,682	29,076,154
1925	27	21,512,814	6,840,098	6,497	36,608,014
1926	28	18,984,539	7,425,459	6,559	33,100,630
1927	33	23,218,826	7,615,872	7,357	38,220,144
1928	30	16,401,463	7,137,603	6,782	32,022,695
1929[1]	42	20,959,668	7,105,466	7,390	37,412,704
1930[1]	41	12,223,525	5,893,804	5,684	24,631,823
1931[1]	38	10,468,547	5,809,739	6,939	22,920,329
1932[1]	36	7,665,658	4,169,366	5,647	13,642,378

[1] Includes rayon goods.

CHARTS

Plate 1

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933

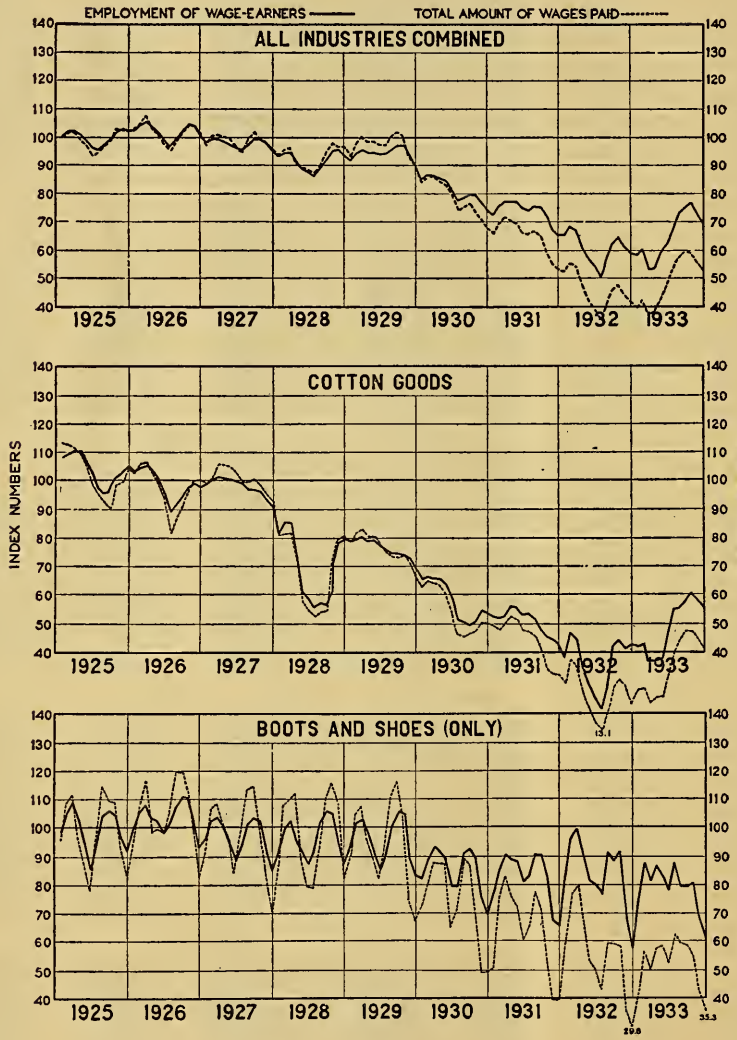


Plate 2

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933 (Continued)

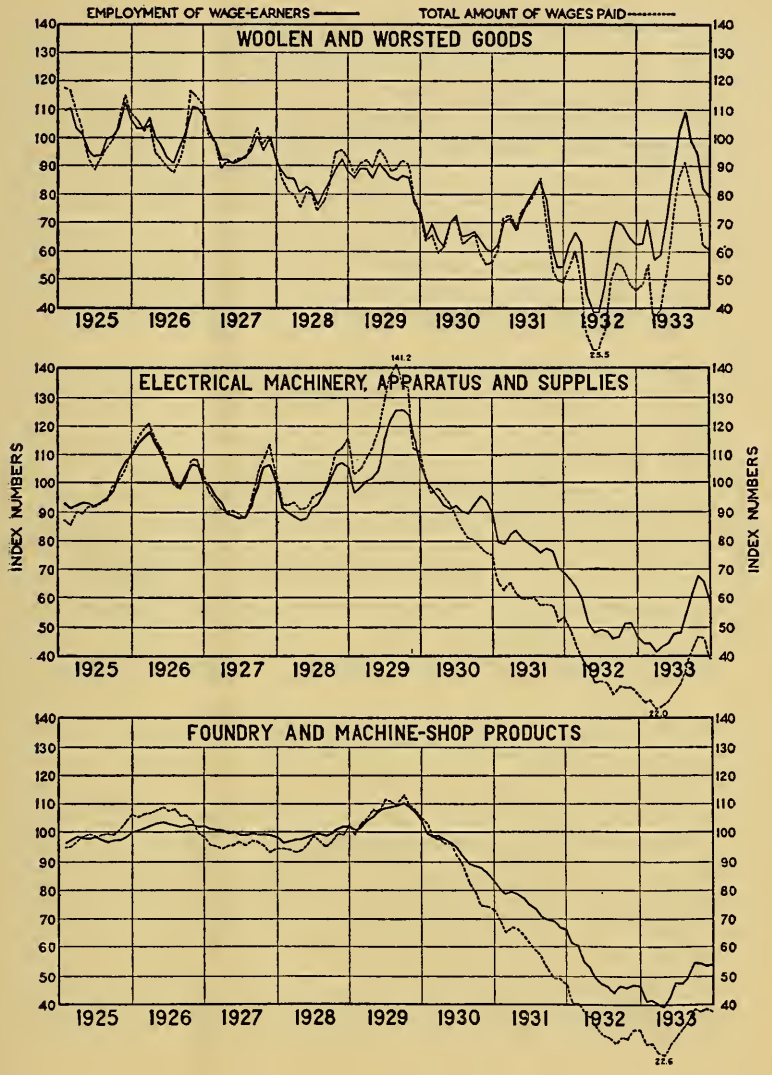


Plate 3

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933 (Continued)

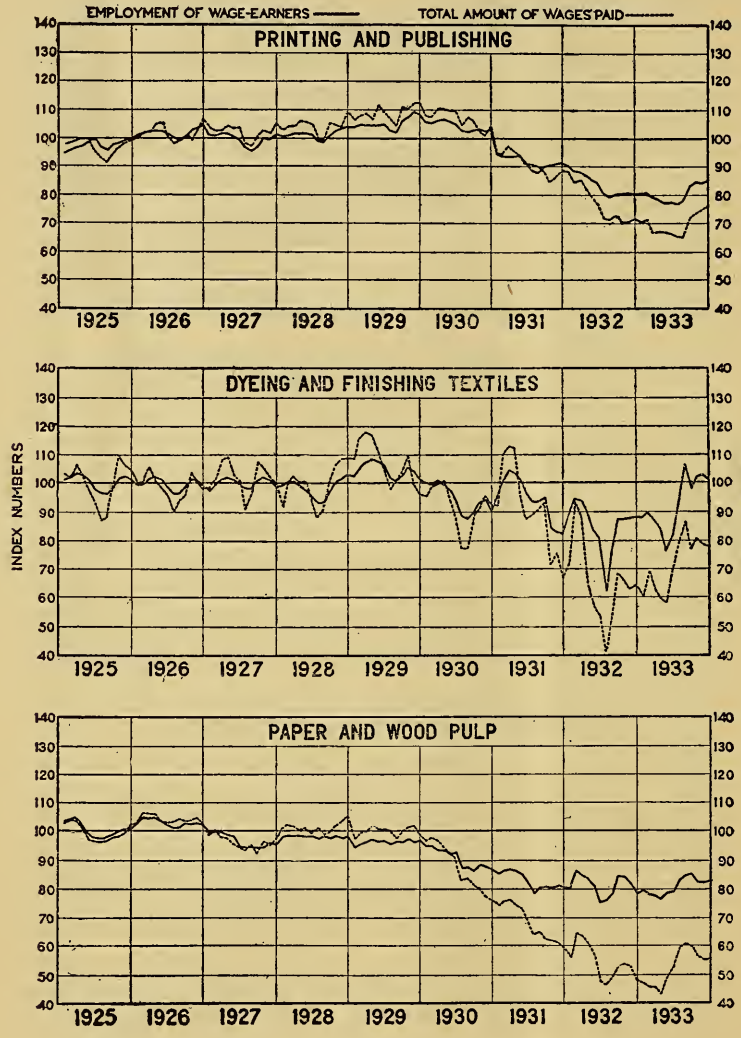


Plate 4

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933 (Continued)

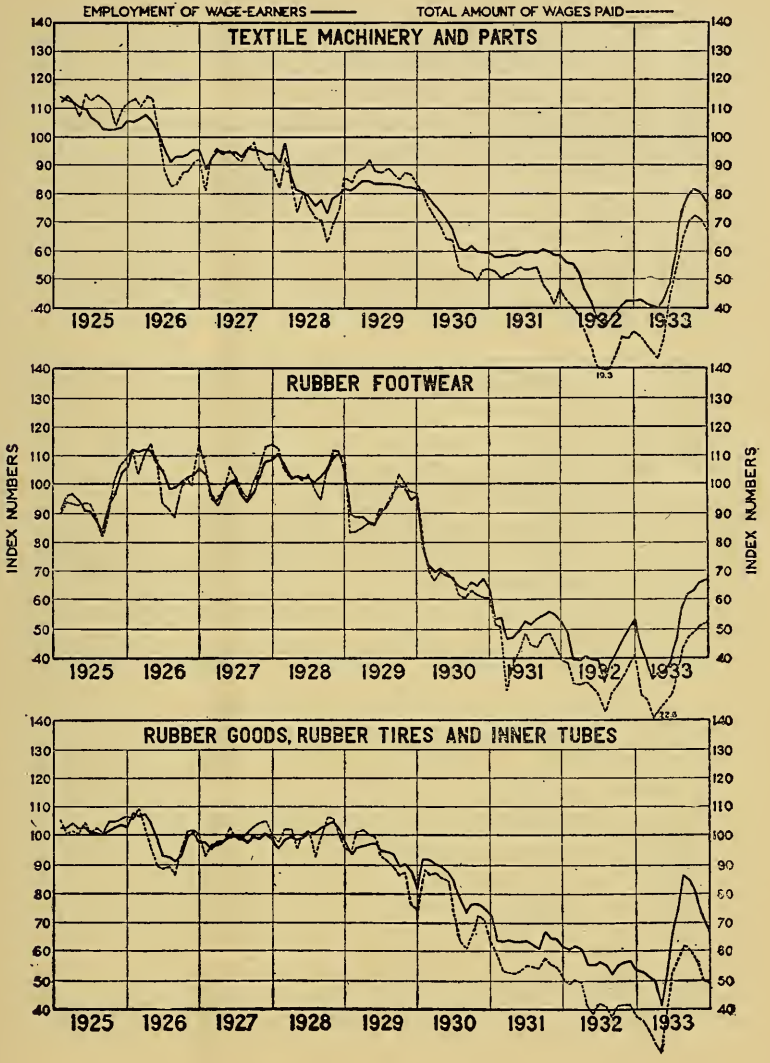


Plate 5

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933 (Continued)

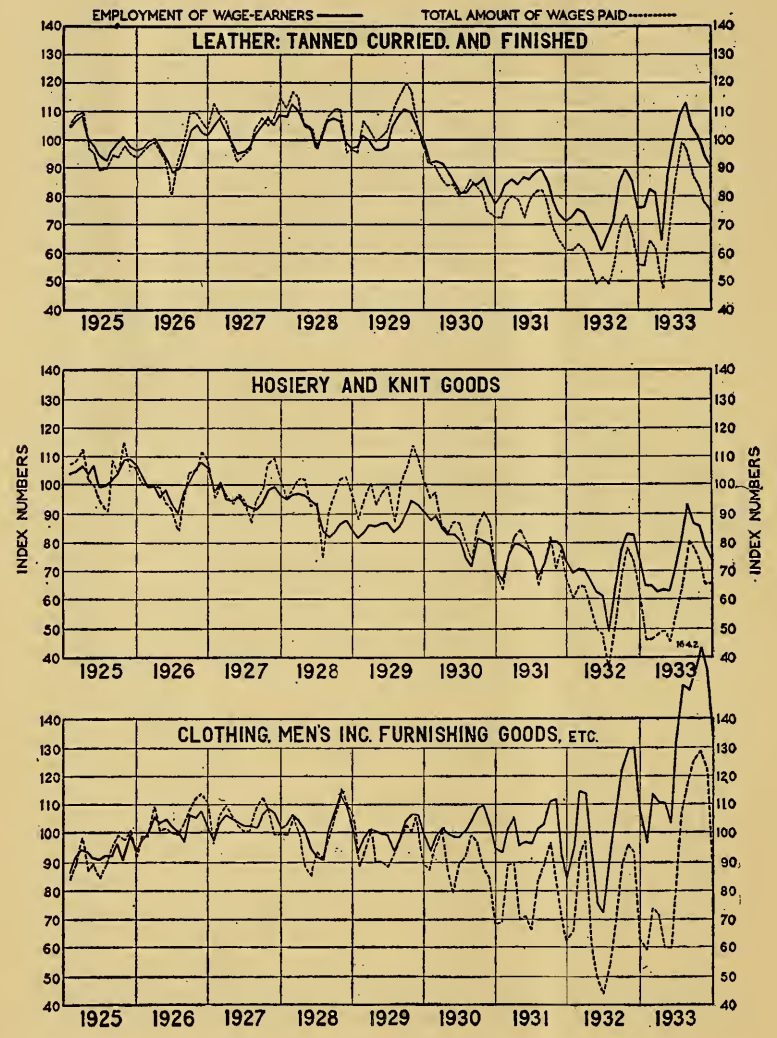


Plate 6

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933 (Continued)

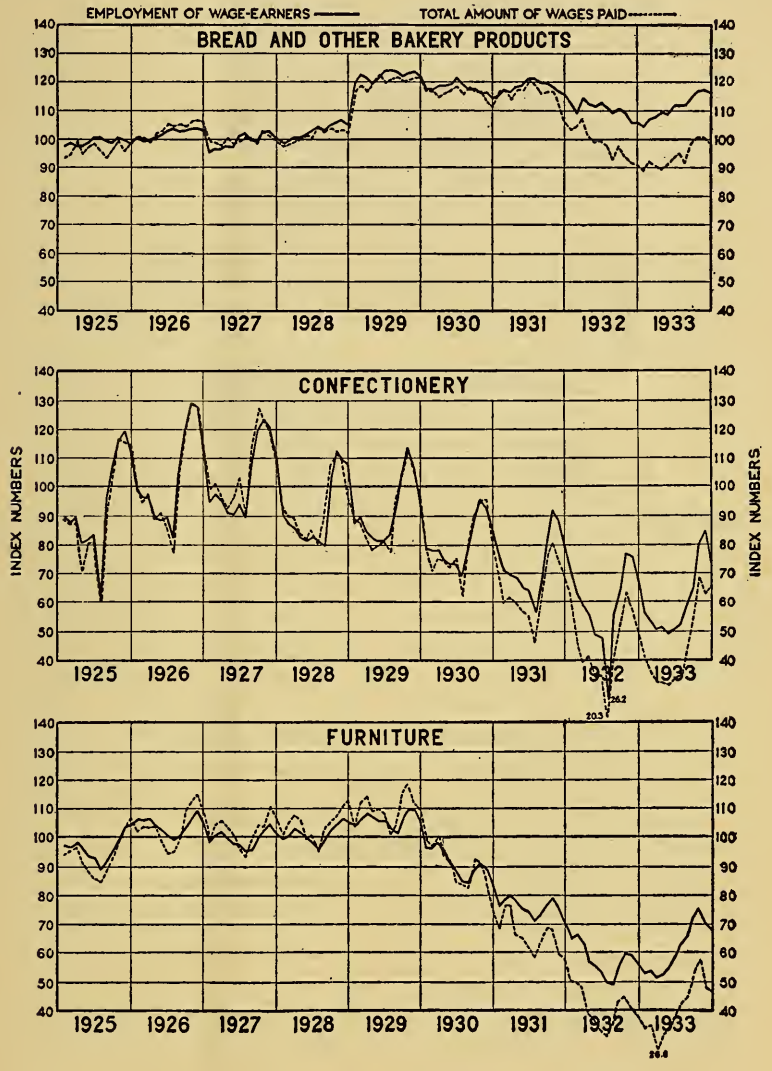


Plate 7

TREND OF EMPLOYMENT AND TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925–1933 (Concluded)

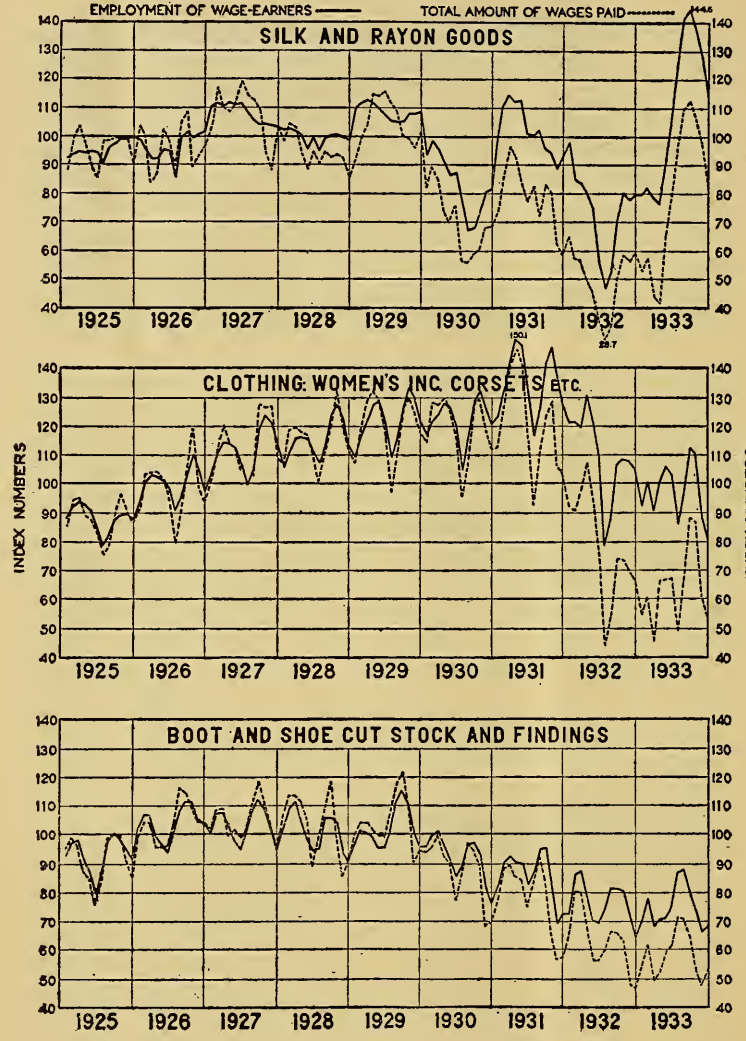


Plate 8

TREND OF EMPLOYMENT IN MANUFACTURING IN 14 LEADING INDUSTRIAL CITIES IN MASSACHUSETTS: BY MONTHS, 1931–1933

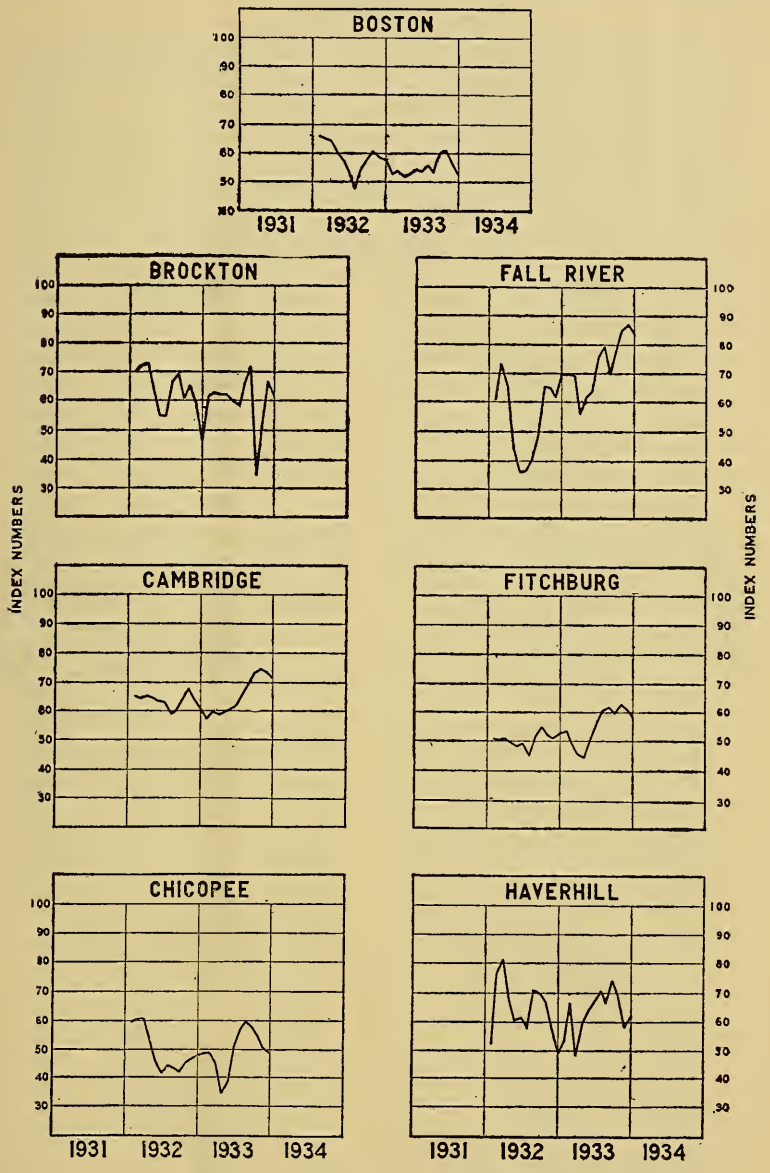


Plate 9

TREND OF EMPLOYMENT IN MANUFACTURING IN 14 LEADING INDUSTRIAL CITIES IN MASSACHUSETTS: BY MONTHS, 1931–1933 (Concluded)

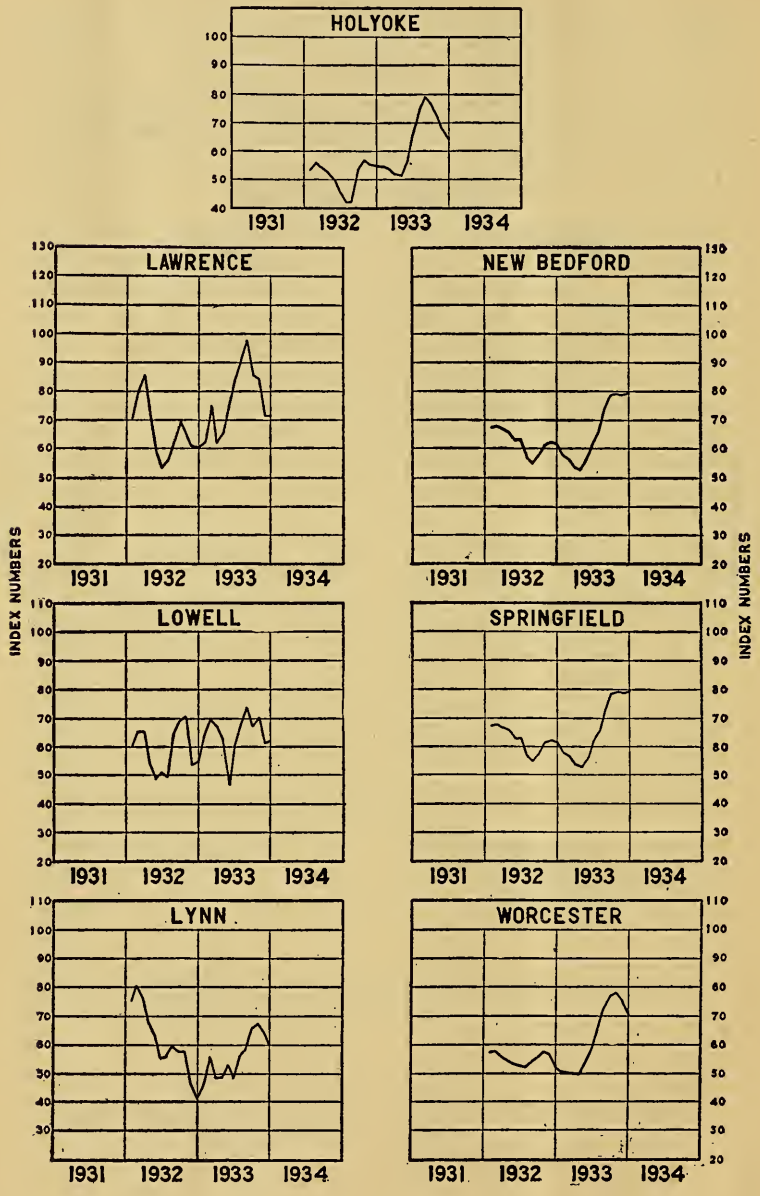


Plate 10

TREND OF EMPLOYMENT IN WHOLESALE AND RETAIL TRADE IN MASSACHUSETTS: BY MONTHS, SEPTEMBER, 1931–DECEMBER, 1933

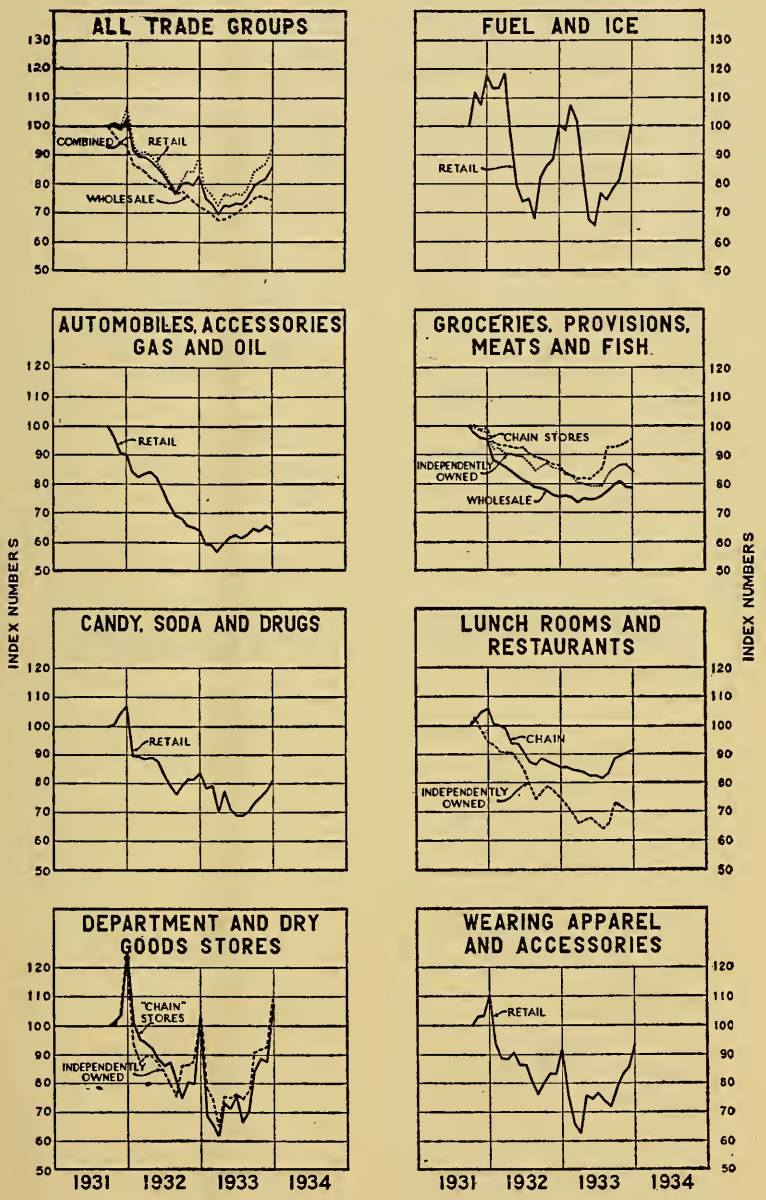


Plate 11

TREND OF TOTAL WAGES PAID IN WHOLESALE AND RETAIL TRADE IN MASSACHUSETTS: BY MONTHS, SEPTEMBER, 1931–DECEMBER, 1933

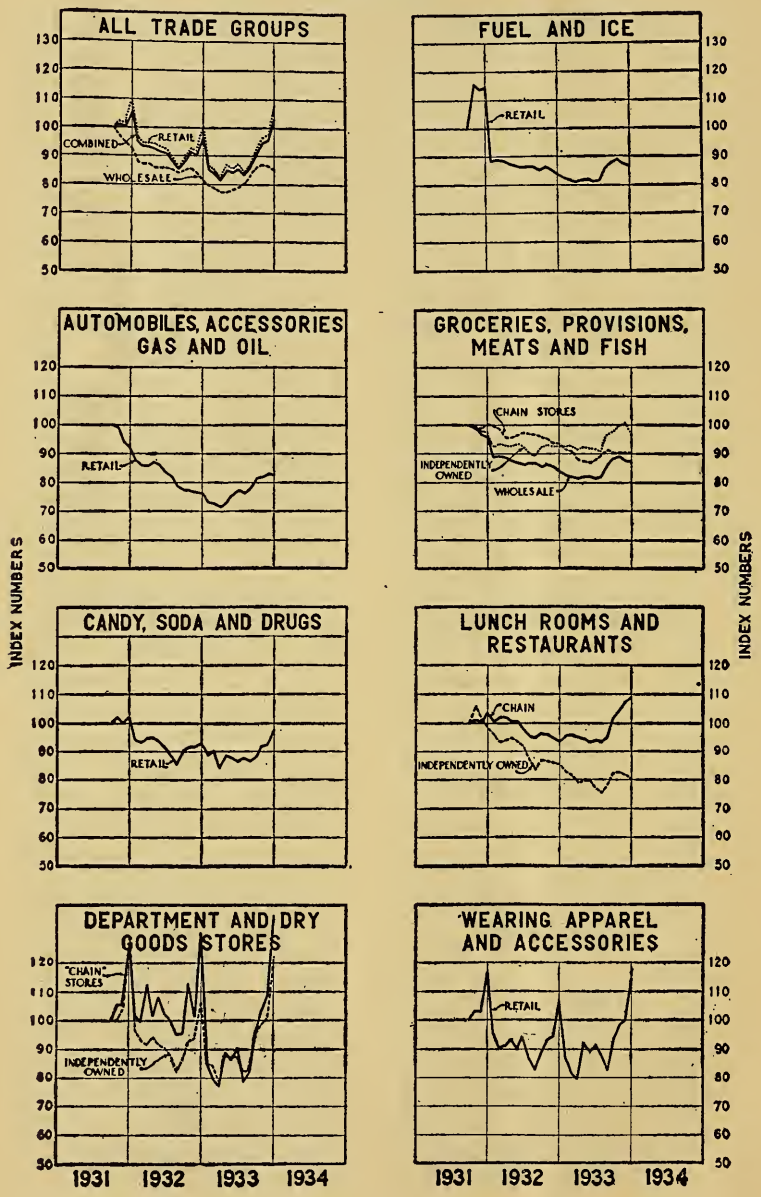


Plate 12

TREND OF EMPLOYMENT, OF TOTAL WAGES PAID, AND OF MAN HOURS WORKED IN BUILDING CONSTRUCTION IN MASSACHUSETTS, APRIL, 1927–DECEMBER, 1933

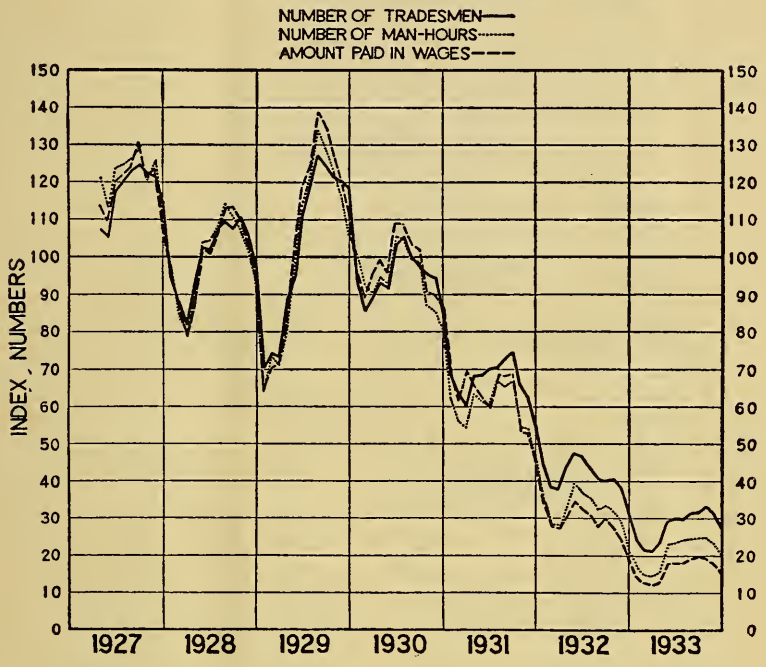


Plate 13

TREND OF EMPLOYMENT OF HIGHWAY WORKMEN IN MASSACHUSETTS, SEPTEMBER, 1931–DECEMBER, 1933

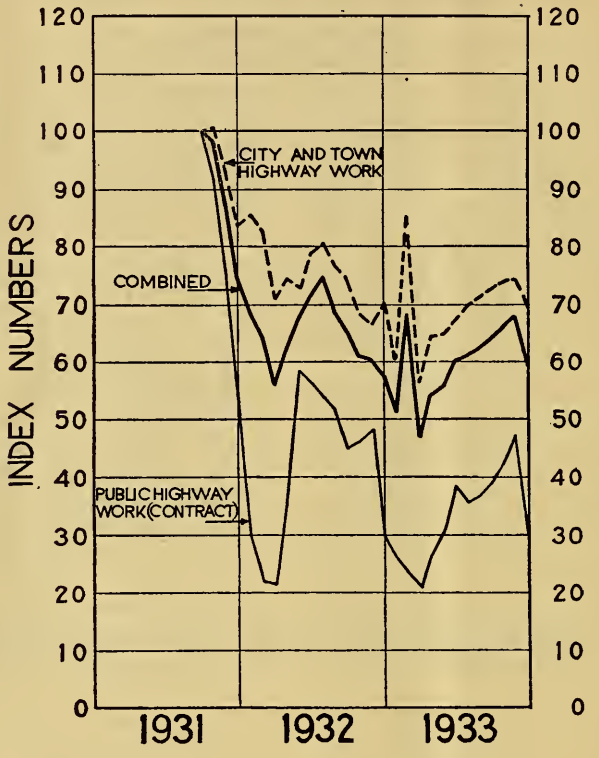


Plate 14

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN PUBLIC UTILITIES IN MASSACHUSETTS, 1930–1933

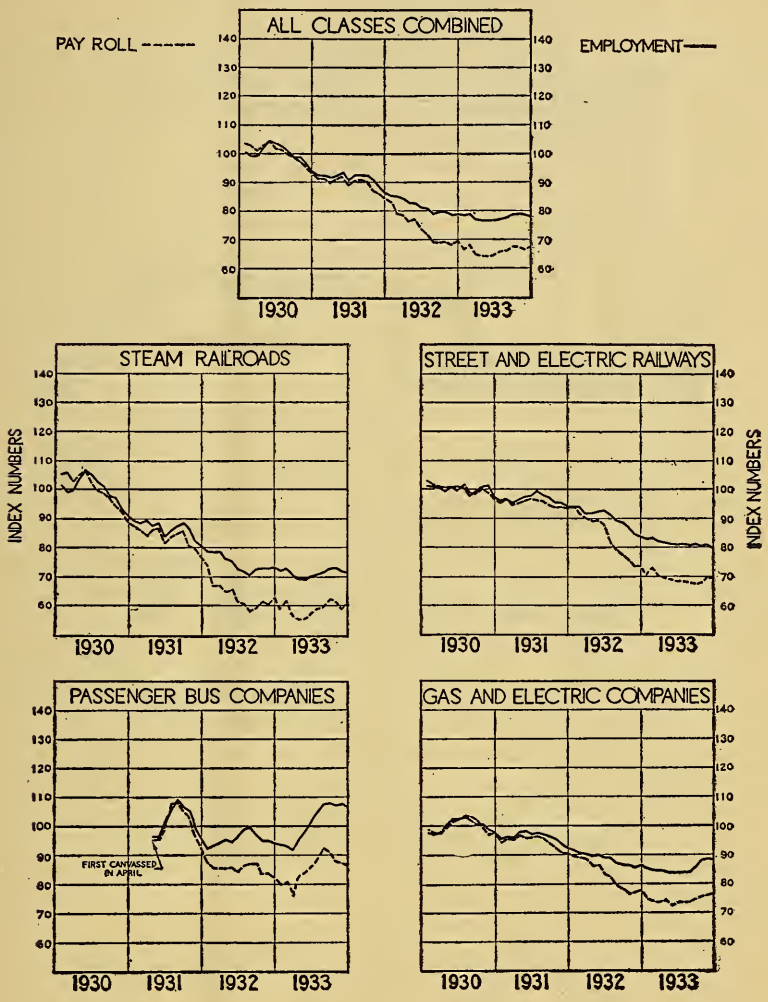


Plate 15

TREND OF EMPLOYMENT AND OF AMOUNT PAID IN WAGES IN MUNICIPALITIES IN MASSACHUSETTS, SEPTEMBER, 1931–DECEMBER, 1933

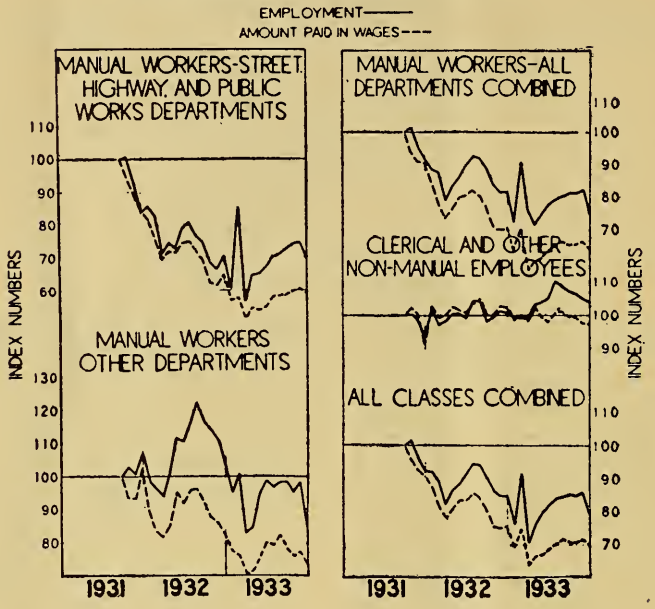


Plate 16

TREND OF EMPLOYMENT IN EIGHT MISCELLANEOUS CLASSES OF EMPLOYMENT IN MASSACHUSETTS, SEPTEMBER, 1931–DECEMBER, 1933

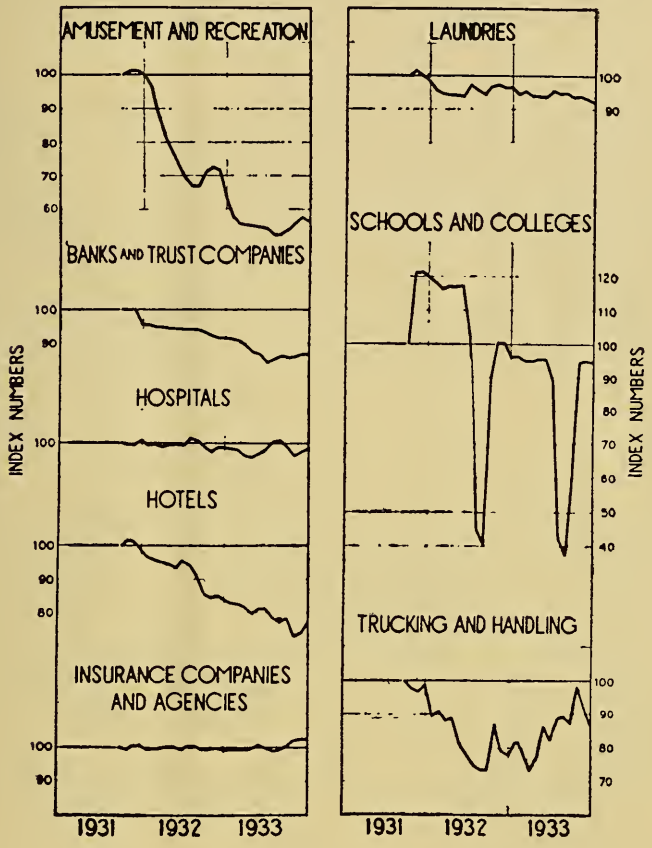
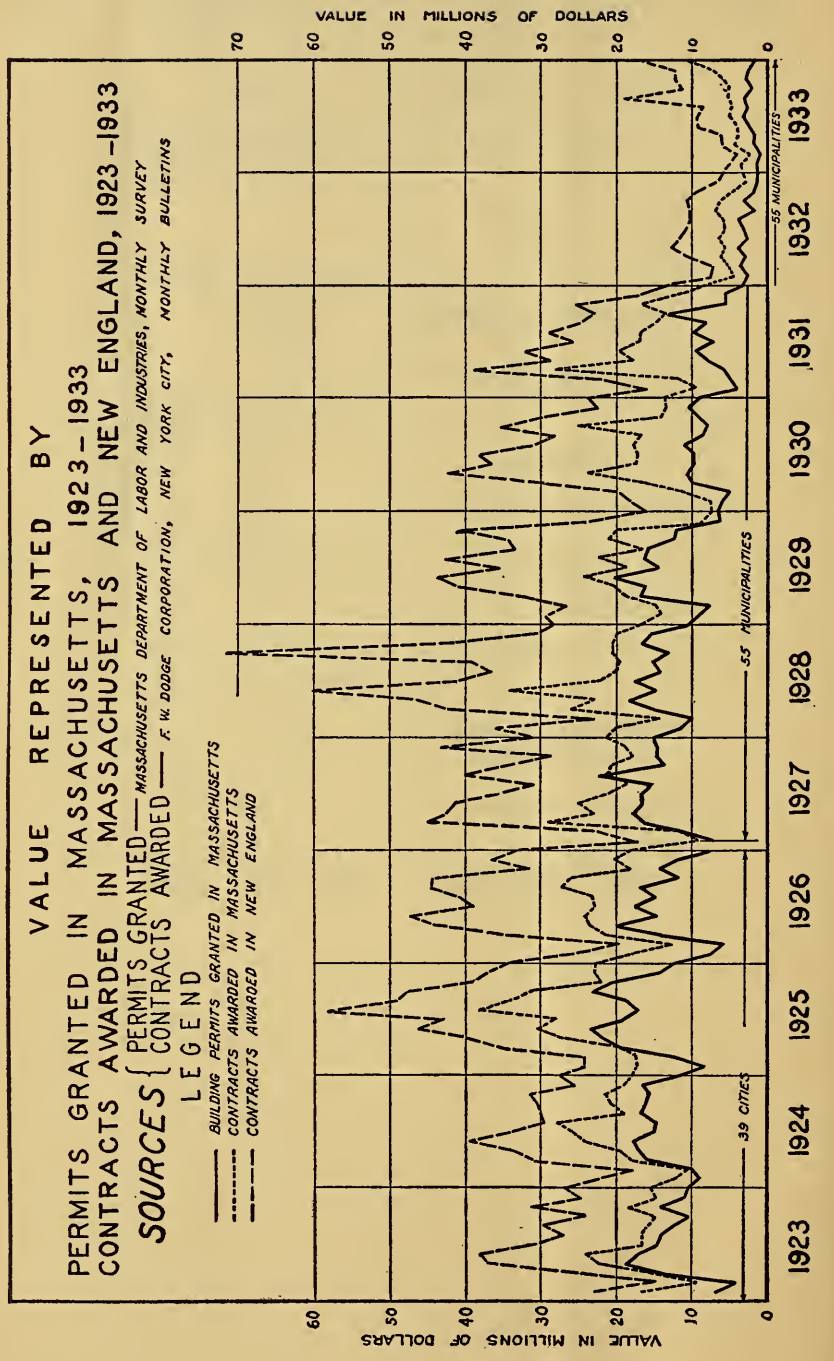


Plate 17


VALUE REPRESENTED BY
PERMITS GRANTED IN MASSACHUSETTS, 1923-1933
CONTRACTS AWARDED IN MASSACHUSETTS AND NEW ENGLAND, 1923-1933
SOURCES { PERMITS GRANTED — MASSACHUSETTS DEPARTMENT OF LABOR AND INDUSTRIES, MONTHLY SURVEY
CONTRACTS AWARDED — F. W. DODGE CORPORATION, NEW YORK CITY, MONTHLY BULLETINS
LEGEND
BUILDING PERMITS GRANTED IN MASSACHUSETTS
CONTRACTS AWARDED IN MASSACHUSETTS
CONTRACTS AWARDED IN NEW ENGLAND
VALUE IN MILLIONS OF DOLLARS
0
10
20
30
40
50
60
70
39 CITIES
55 MUNICIPALITIES
55 MUNICIPALITIES
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933

REPORT OF THE DIVISION OF PUBLIC EMPLOYMENT OFFICES

(Affiliated with United States Employment Service)

M. J. McCartin, *Director*

Introduction

This report covers the operations of the Division of Public Employment Offices, for the fiscal year ending November 30, 1933.

In addition to the general report on the activities of the Division of Public Employment Offices, statistical data relating to the work of the division during the calendar year 1933 are presented. Summary data for prior years for the purpose of comparison, together with a chart showing graphically the fluctuations from month to month in the total number of openings and placements reported by the division during the years 1924 to 1933 inclusive, are also submitted.

The opening of the fiscal year found the division without a full time Director in charge, as Mr. Roswell F. Phelps, Director of the Division of Statistics, was serving as Acting Director at the time. On February 1, 1933, Mr. M. Joseph McCartin was appointed Director by the Commissioner with the approval of the Governor and Council, and assumed charge at that time.

Development and Expansion

The year 1933 was perhaps the most important year in the history of the Division of Public Employment Offices since the inception of state public employment office activity in 1906. On June 6, 1933, Congress passed the so-called Wagner-Peyser Act (Public No. 30 — 73rd Congress) which provided for the establishment of a national employment service and for co-operation with the states in the promotion of such a system. The provisions of this Act were accepted by the General Court (Chapter 52, Resolves of 1933) and the Department of Labor and Industries designated as the agency to co-operate with full power to act.

The United States Employment Service was designated by Congress as the Federal agency to carry out the provisions of this Act. Congress also provided for the appropriation of certain sums of money to be granted to those states which accepted the provisions of the Act and which fulfilled certain minimum requirements as provided in the Act. The allotment for Massachusetts for the fiscal year ending June 30, 1934, was $38,958.44 of which $28,012.75 had been received previous to November 30, 1933.

During the summer of 1933 the Director prepared an extensive report for submission to the United States Employment Service outlining the organization and the facilities of the Division of Public Employment Offices. This report included a tentative plan of development and expansion, provided the allotment of funds to this State was actually granted.

After some changes in the report by the United States Employment Service, a plan was finally accepted and the Division of Public Employment Offices was formally affiliated with the United States Employment Service on September 13, 1933. The agreement of affiliation provides for a uniform nomenclature for the various state services throughout the country and to conform to this provision it became necessary to change the name from Division of Public Employment Offices to "Massachusetts State Employment Service (Affiliated with United States Employment Service)."

In the plan finally approved by the United States Employment Service, the opening of six new offices as soon as possible was called for, using federal funds for the purpose. These offices were planned in Greenfield, Lawrence, Lowell, Lynn, New Bedford and Pittsfield. Since the National Reemployment Service provided temporary service in communities where the permanent service was not established it was deemed advisable to delay the establishment of new permanent offices until proper quarters were secured and Civil Service lists were furnished from which the permanent appointees might be selected. Examinations were scheduled for Superintendent on December 6, 1933, and for Junior and Senior Registrars on

December 2, 1933. In the meantime the Director and the Superintendent of Buildings co-operated in an attempt to seek suitable quarters for the new offices which were to be established. However, no new offices had been set up prior to the close of the fiscal year.

Under the provisions of affiliation the Division of Public Employment Offices conforms with certain standards laid down by the United States Employment Service in such matters as personnel requirements, suitability of quarters, printed forms, statistical reports, stationery, nomenclature, etc. The franking privilege was extended to the Division which eliminates postage expense.

Also as part of the conditions of affiliation, an agreement was entered into between the Division of Public Employment Offices and the Rehabilitation Section, Division of Vocational Education, Massachusetts Department of Education, providing for co-operation between these two State agencies in the placement of physically handicapped persons in suitable jobs.

New Boston Office

Arrangements were made during the Fall of 1933 for the removal of the Boston offices from 169 Congress Street where the Trades and Labor division was located, and from 157 Federal Street where the Clerical and Technical division had its office, to the new Public Works Building at 100 Nashua Street, near the North Station. The Division was successful in securing practically the entire ninth floor and almost half the basement for the use of the Division's Boston office. The ninth floor is used for the State Administrative office and all the divisions of the Boston office with the exception of the unskilled labor division. The quarters in the basement are reserved for the use of unskilled labor.

The layout of the Boston office conforms to the minimum standards laid down by the United States Employment Service and is modern in every detail. It is arranged in accordance with many of the latest ideas of efficient service to employers and employees as developed in the experimental stations at Rochester and Philadelphia. Besides the administrative offices there are two main divisions, one for workers in industry and skilled trades, the other for clerical, professional and technical workers. A receptionist directs the applicants to the proper office, where an opportunity is afforded for a private interview with the registrar. Ample waiting room and clear directions facilitate the handling of applicants and save time. The department for laborers and casual workers, who visit the office in greater numbers and more frequently, is located in the basement.

One of the salient features of the new set-up is the opportunity offered employers to talk privately with prospective employees. For this purpose, space in the interviewing rooms has been allowed, and in the clerical and technical division, a separate consultation room is provided.

In addition to these offices the Division has further established bureaus to coordinate related activities in the several offices, to bring their work into relationship with outside groups, and to take care of special cases among applicants. These bureaus are Veterans' Placement, Junior Placement, Handicapped Placement, and the department for Co-operative Agencies, which will assist in the clearance of jobs through local non-paying agencies as well as providing for special service in connection with the technical groups furnished by the Emergency Planning and Research Bureau. State wide clearance of jobs, reporting on the labor market and on the extent of placement will be accomplished in the Department of Statistics and Clearance, while contacts with employers' and workers' groups, follow-up on placements, and publicity will be handled through the Public Relations Bureau.

In his talk during the opening ceremonies at the new location, Mr. W. Frank Persons, Director of the United States Employment Service, said, "The new offices of the State Employment Service are the best in New England, if not in the country."

Final arrangements were made for the re-location and on November 29, 1933, the day before Thanksgiving, the Boston offices on Congress and Federal Streets were closed. Friday, December 1, 1933, the new offices in the Public Works Building were opened for business.

Relocated Worcester Office

The Worcester office was moved from 23 Foster Street to 182 Commercial Street in October, 1933. The new offices are in the same building but a separate entrance just around the corner is provided. By making this move the Public Employment Office in Worcester secured about double the floor space, with departments on the first and second floors of the building. A private stairway connects the two floors.

The first floor is devoted to the men's trades and labor division while the second floor, which is also reached through the main entrance of the building at 25 Foster Street, is used for all women's divisions. The Superintendent's office, the statistical division, and the clerical and technical division are also on the second floor.

State Advisory Council

In accordance with the recommendations of the United States Employment Service, a State Advisory Council was appointed by the Commissioner to assist in widening the understanding of employers and the community in general, of the present and potential usefulness of the Division of Public Employment Offices. This council consists of representatives of employers and employees in equal numbers, and of the public.

There are three standing committees in the council, the Executive Committee, the Veterans' Placement Service Committee and the Committee on Junior Placement and Handicapped.

The Executive Committee formulates general policies for decision at the meetings of the council and acts for the council in its absence subject to the approval of the general body.

The Veterans' Placement Service Committee concerns itself with giving advice regarding the proper functioning of the Veterans' Placement Service in the Division of Public Employment Offices. Being composed of present or past state Commanders of Veterans' organizations, wholehearted interest on the part of the committee is assured.

The Junior Placement and Handicapped Placement Committee is concerned with giving advice regarding the establishment of proper facilities for junior placement work and also advising the Council in regard to the present activities and future plans of the Supervisor of Handicapped Placement Activities.

No meetings of the State Advisory Council were held prior to November 30, 1933.

The list of members and officers of the Council and of the standing Committees is given below.

Representatives of Employers		
John S. Lawrence	Boston	Chairman, Mass. Division N. E. Council
Henry S. Dennison	Framingham	Pres., Dennison Mfg. Company
Alfred E. Donovan	Rockland	Pres., E. T. Wright Shoe Co.
Lincoln Filene	Boston	Chairman of Board, Wm. Filene's Sons Co.
F. H. Willard	Worcester	Pres., Graton & Knight Co.
Representatives of Employees		
Robert J. Watt	Boston	Sec.-Treas., Mass. State Branch of A. F. of L.
John F. Gatelee	Springfield	Pres., Springfield C. L. U.
Ernest A. Johnson	Boston	Pres., Boston Building Trades Council
John R. Machado	Fall River	Pres., Fall River C. L. U.
Charles F. Sweeney	Fitchburg	Sec.-Treas., Fitchburg C. L. U.
Representatives of the Public		
Mrs. LaRue Brown	Boston	Trustee, Massachusetts Training School
Roy M. Cushman	Boston	Exec. Sec., Boston Council of Social Agencies
Leo M. Harlow	Boston	Past State Commander, American Legion — lawyer
Miss Amy Hewes	So. Hadley	Department of Economics and Sociology Mt. Holyoke College

Dr. Stanley King	Amherst	Pres., Amherst College
Paul F. Perkins	Boston	Associate Counsel, N. Y. N. H. and H. R. R.
Mrs. Katherine Shattuck	Worcester	Exec. Sec., Industrial Dept. Y. W. C. A.
Robert O. Small	Boston	Deputy Commissioner, State Department of Education
Julian D. Steele	Boston	Director, Robert Gould Shaw House
Judge Wm. M. Welch	Northampton	
Margaret Wiesman	Boston	Sec., Consumers' League of Massachusetts

Officers

Chairman: John S. Lawrence *Vice-chairman:* Robert J. Watt
Secretary: M. J. McCartin

Executive Committee

John S. Lawrence, *Chairman*
Robert J. Watt, *Vice-chairman*
Alfred E. Donovan
Ernest A. Johnson
Miss Amy Hewes
Miss Margaret Wiesman
M. Joseph McCartin, *Secretary*

Veterans' Placement Service Committee

Leo M. Harlow, *Chairman*, former State Commander of American Legion
Daniel J. Doherty, State Commander, American Legion
Walter Howard, State Commander, Veterans of Foreign Wars
T. James Gallagher, State Commander, Disabled American Veterans of World War
William Quirk, State Commander, United Spanish War Veterans

Committee on Junior Placement and Handicapped

Miss Susan Ginn, *Chairman*
Robert O. Small Fred Graham

Local Advisory Councils

Also in accordance with the agreement of affiliation with the United States Employment Service local advisory councils are planned for in order to discuss the particular problems affecting employment in the cities in which the employment service maintains offices.

Up to November 30, 1933, the only advisory council which had been appointed was that for Boston. This council also consisted of representatives of employers and employees in equal number together with representatives of the public. Members are appointed by the Commissioner. Membership of the Advisory Council for the Boston office is as follows:

Representatives of Employers

David F. Edwards	Boston	Pres., Saco-Lowell Shops
Arthur Newhall	Watertown	Pres., Hood Rubber Company

Representatives of Employees

Ernest Johnson	Boston	Pres., Boston Building Trades Council
J. Arthur Moriarty	Boston	Pres., Boston Central Labor Union

Representatives of the Public

Edward Dana	Boston	General Mgr., Boston Elevated Railway
Lincoln Filene	Boston	Chairman of Board, Wm. Filene's Sons Co.
Walter H. Neaves	Boston	Exec. Vice.-Pres., Federal Home Loan Bank

Officers

Chairman: Walter H. Neaves

Civil Works Administration

In the latter part of November, the Federal Government inaugurated the so-called Civil Works Administration program. The Division of Public Employment Offices was designated to act as the registration and referral agency for all Civil Works projects in Boston, Springfield and Worcester. This placed an unprecedented load upon the offices and taxed their facilities to such an extent that it became necessary to secure the use of the South Armory on Irvington Street, Boston, the lower floor of the Municipal Auditorium in Springfield and additional quarters in Worcester for many weeks for registration purposes. As an illustration of the abnormal increase in the number of registrations received by the Division due to the inauguration of the Civil Works Administration, attention is called to the fact that in September, 1933, the total number of registrations was 3,541 — in October 8,913 — in November 30,239 and in December 34,995. No period of the past has ever seen such responsibilities thrust upon the employees of the Division of Public Employment Offices since the establishment of the service in 1906.

It became necessary to increase the staff of all offices to a larger figure than ever before in the history of the Division. A Civil Works Administration project was set up to provide for assistance in clerical work and registration in all offices of the Division and these temporary workers were paid entirely from Federal funds. So far as can be learned the Division of Public Employment Offices functioned extremely well during this extraordinary rush and performed its duties as efficiently as the unusual conditions would permit, which efficiency was surprisingly high under the circumstances. Very little or no unfavorable newspaper comment was aroused by the service rendered by offices of the Division. A great deal of credit should go to the personnel of the Division for their faithful work during the Civil Works Administration rush. Many of them worked until late in the evening, every evening of the week and often on Sundays to keep up with the enormous amount of clerical work necessary. In no case was any provision made for additional compensation for this extra work.

Publicity

Besides the market letters which have been prepared each month and distributed to the newspapers as in the past, a leaflet was prepared and printed which contained pertinent information concerning the Division of Public Employment Offices. These leaflets were prepared for distribution to the general public at all types of gatherings, such as fairs, conventions, meetings of associations, and other events of similar nature. The Division designed and set up booths depicting the features of this service together with those of the State Department of Labor and Industries at the Brockton Fair, the Eastern States Exposition at Springfield and the Boston Food Fair and Prosperity Exposition. The attendance at these fairs aggregated well over 500,000.

A unique part of the publicity equipment possessed by the Division of Public Employment Offices is an automatic projection machine with a maximum capacity of 72 stereopticon slides. By means of caption slides and posed photograph slides, the story of the Division is depicted in a graphic manner. This machine can be quickly and easily set up at fairs, conventions, meetings of employers or other gatherings and will run continuously without attention. Past experience has shown that this machine attracted more attention and favorable comments than did the posters, bulletins and leaflets which also formed a part of the exhibits already set up.

Plans for the Future

Briefly the plans for the expansion and improvement of the Division of Public Employment Offices during the next year are as follows. Establishment of the six new offices already planned, using personnel as certified to us by Civil Service authorities, based on the examinations for Superintendent and Junior and Senior Registrars which were scheduled for December, 1933; intensive program of training of staffs in all offices; field visits to employers; establishment of a better Public Relations Division and clearance system; standardization of files and filing equipment in all offices; development of a uniform statistical procedure, including the

adoption of the daily reporting system; development of the Junior Placement Division and also the Division for Placement of Handicapped. Close attention will be paid to the development of the newly established offices and surveys conducted to determine cities in which additional offices may be located. Close cooperation is planned with the Veterans' Placement Representative in improving the procedure for the placing of veterans. Local advisory councils will be appointed for all offices and programs for their meetings and activities developed as rapidly as possible.

Statistical Summary

The principal data relative to the activities of the Division of Public Employment Offices during the calendar year 1933, with corresponding data for 1932, are presented in Table 1.

Placements. — The total number of placements during the calendar year 1933 amounted to 28,548. This number was 17,766 or 164.8 per cent greater than the number of placements (10,782) made during 1932. This abnormal increase was due in a large measure to the placement of 15,929 persons in Civil Works Administration jobs during November and December. All offices of the Division showed great increases in the number of placements. In Boston (all divisions) the increase over 1932 was 228.1 per cent; in Springfield 71.7 per cent; and in Worcester 173.1 per cent.

Openings. — During the calendar year 1933, the total number of openings (persons called for by employers) at all offices combined was 31,666 which was 18,409 or 138.9 per cent more than the number of openings (13,257) recorded in 1932. Most of this abnormal increase was due to the 16,475 Civil Works Administration openings received by the Division. The increases in the number of openings in each office were as follows: Boston (all divisions) 169.1 per cent; Springfield 67.9 per cent; and Worcester 170.0 per cent. The 31,666 openings received during 1933 resulted in 28,548 placements. This represented 90.2 per cent of the total number of openings, as compared with 81.3 per cent in 1932 and 83.1 per cent in 1931. The higher percentage in 1933 was due to the fact that all Civil Works Administration openings received by the offices of the Division were of necessity filled by these offices.

Table 1. — Summary of Business of the Division of Public Employment Offices During the Years 1933 and 1932: By Offices

Offices	1933				1932			
	Applications	Openings	Referrals	Placements	Applications	Openings	Referrals	Placements
Boston All Divisions	68,786	17,442	21,732	16,440	25,501	6,489	9,567	5,011
Springfield	11,842	6,657	7,416	6,189	4,355	3,965	4,609	3,604
Worcester	17,674	7,567	8,038	5,919	4,559	2,803	3,414	2,167
Totals	*98,302*	*31,666*	*37,186*	*28,548*	*34,415*	*13,257*	*17,590*	*10,782*

Referrals. — The total number of persons referred to positions in all offices combined during the calendar year 1933 was 37,186, which was 19,596 or 111.4 per cent greater than the number (17,590) referred to positions in 1932. Percentage increases over the 1932 figures in the various offices in 1933 are as follows: Boston (all divisions) 127.2 per cent; Springfield 60.9 per cent; and Worcester 135.4 per cent. During 1933 the 37,186 referrals resulted in 28,548 placements, or an average of 1.3 persons sent out for each position filled by the Division. In 1932 this ratio was 1.6. The lower ratio in 1933 may be attributed to the fact that most persons who were referred to Civil Works Administration projects actually went to work. This was the case largely because the Civil Works Administration authorities in Boston, Springfield and Worcester depended to a great extent on the Division of Public Employment Offices for selecting suitable personnel, and also because most of those who were referred to Civil Works positions were glad to get temporary work of this nature.

Records by Sex. — Principal data for the years 1933 and 1932 are presented by sex in Table 2 for each office separately and for all offices combined.

Of the 28,548 placements made during 1933 by all offices combined, 22,901 or 80.2 per cent were of men. In the Boston office (all divisions) placements of men made up 79.0 per cent of the total number of placements; in Springfield 87.5 per cent; and in Worcester 76.0 per cent.

Table 2. — Summary of Business of the Division of Public Employment Offices During the Years 1933 and 1932: By Offices and Sex

Office and Classification	1933 Applications	1933 Openings	1933 Referrals	1933 Placements	1932 Applications	1932 Openings	1932 Referrals	1932 Placements
Boston:								
All Divisions								
Males	51,919	13,581	16,937	12,988	16,900	4,154	6,334	3,199
Females	16,867	3,861	4,795	3,452	8,601	2,335	3,233	1,812
Totals	*68,786*	*17,442*	*21,732*	*16,440*	*25,501*	*6,489*	*9,567*	*5,011*
Springfield:								
Males	9,159	5,528	5,851	5,416	2,723	2,908	3,060	2,872
Females	2,683	1,129	1,565	773	1,632	1,057	1,549	732
Totals	*11,842*	*6,657*	*7,416*	*6,189*	*4,355*	*3,965*	*4,609*	*3,604*
Worcester:								
Males	13,320	5,204	5,491	4,497	2,602	1,504	1,702	1,309
Females	4,354	2,363	2,547	1,422	1,957	1,299	1,712	858
Totals	*17,674*	*7,567*	*8,038*	*5,919*	*4,559*	*2,803*	*3,414*	*2,167*
All offices combined:								
Males	74,398	24,313	28,279	22,901	22,225	8,566	11,096	7,380
Females	23,904	7,353	8,907	5,647	12,190	4,691	6,494	3,402
Totals	*98,302*	*31,666*	*37,186*	*28,548*	*34,415*	*13,257*	*17,590*	*10,782*

Records by Months. — In Table 3 are presented principal data for the years 1933 and 1932, by months, covering the activities of all offices combined and of each office separately. It is seen that December 1933 was by far the busiest month in either of the two years. This was due almost entirely to the Civil Works Administration, which placed an abnormal load on all offices of the Division. However, the number of openings received and placements made during each month from May, 1933, on was greater than in the corresponding months of 1932, due both to greater industrial activity and to the inauguration of public works construction financed in whole or in part by Federal funds.

Classification of Placements by Industries. — Upon the affiliation of the Division of Public Employment Offices with the United States Employment Service in 1933 the classification of data formerly used by the state offices was abandoned, and the standard classification used by all affiliated state employment services throughout the country was adopted.

The new classification is strictly on an industrial basis, whereas the one formerly used was a combination of industrial and occupational groupings. Figures classified in the new way are available only from July, 1933.

In order to make an approximate comparison on an industrial basis between the number of placements made in 1933 and 1932 it was necessary to make the following arbitrary adjustments, which, while not absolutely accurate, are sufficiently so to indicate general trends.

"Casual workers" in the old classification were split up, all the women being put in "Domestic and personal service," one half the men allocated to "Building and Construction," and the other half placed under "Transportation and Public Utilities." Where no division by sex was given, the total was divided equally among these three classifications.

"Common Labor" was assigned in total to "Building and Construction."

"Woodworking and furniture" was combined with "Lumber" to make "Lumber, furniture, and allied industries."

"Musical instruments" was combined with "Miscellaneous."

"Shipbuilding" was combined with "Metals and machinery."

"Theatre and amusements" was combined with "Clerical, Professional, and Technical."

The new classification was also adjusted, somewhat along the same lines, so that the data as finally presented in Table 4 show a fairly close approximation of the relative activity in each of these industrial groups during 1933 and 1932, in each of the cities in which the Division maintained offices.

Table 3. — Summary of Business of the Division of Public Employment Offices During the Years 1933 and 1932: By Offices and Months

Office and Month	1933				1932			
	Applications	Openings	Referrals	Placements	Applications	Openings	Referrals	Placements
All Offices Combined								
January	2,536	981	1,242	762	3,536	838	1,054	679
February	1,735	798	1,051	683	3,814	1,040	1,320	815
March	2,831	859	1,112	639	4,919	1,095	1,390	895
April	1,977	1,050	1,298	904	2,685	1,172	1,461	1,019
May	2,738	1,671	2,008	1,359	2,602	1,212	1,539	977
June	3,213	1,632	1,843	1,361	2,634	1,065	1,371	911
July	2,653	987	1,177	765	1,818	692	866	566
August	2,931	1,274	1,526	1,002	2,324	936	1,234	721
September	3,541	1,576	1,913	1,296	3,156	1,180	2,106	971
October	8,913	1,848	2,285	1,572	2,532	1,210	1,717	1,003
November	30,239	2,753	3,088	2,286	2,429	1,569	1,954	1,108
December	34,995	16,237	18,643	15,919	1,966	1,248	1,578	1,117
Totals	*98,302*	*31,666*	*37,186*	*28,548*	*34,415*	*13,257*	*17,590*	*10,782*
Boston: all Divisions								
January	1,647	514	707	388	2,320	393	522	317
February	1,223	376	547	316	2,967	464	653	331
March	1,708	340	499	258	4,248	548	777	439
April	1,199	423	601	357	1,907	526	695	451
May	1,850	784	1,014	614	1,783	562	727	429
June	2,055	618	777	533	1,889	474	673	372
July	1,370	398	498	302	1,294	284	373	219
August	1,738	477	652	406	1,693	400	596	270
September	2,213	570	783	491	2,316	621	1,416	522
October	7,244	678	1,029	602	1,842	628	960	505
November	21,483	1,203	1,251	1,144	1,810	948	1,259	584
December	25,056	11,061	13,374	11,029	1,432	641	916	572
Totals	*68,786*	*17,442*	*21,732*	*16,440*	*25,501*	*6,489*	*9,567*	*5,011*
Springfield:								
January	583	238	270	207	684	272	319	236
February	265	214	255	193	429	372	421	338
March	265	214	270	171	322	339	369	306
April	414	342	374	313	322	400	460	366
May	465	462	518	422	433	374	466	335
June	548	540	566	497	338	362	422	343
July	368	235	278	212	249	194	235	176
August	541	401	458	346	265	281	336	253
September	725	522	641	490	447	311	402	270
October	770	739	776	675	271	295	345	261
November	1,740	428	568	484	325	377	420	352
December	5,158	2,322	2,442	2,179	270	388	414	368
Totals	*11,842*	*6,657*	*7,416*	*6,189*	*,355*	*3,965*	*4,609*	*3,604*
Worcester:								
January	306	229	265	167	532	173	213	126
February	247	208	249	174	418	204	246	146
March	858	305	343	210	349	208	244	150
April	364	285	323	234	456	246	306	202
May	423	425	476	323	386	276	346	213
June	610	474	500	331	407	229	276	196
July	915	354	401	251	275	214	258	171
August	652	396	416	250	366	255	302	198
September	603	484	489	315	393	248	288	179
October	899	431	480	295	419	287	412	237
November	7,016	1,122	1,269	658	294	244	275	172
December	4,781	2,854	2,827	2,711	264	219	248	177
Totals	*17,674*	*7,567*	*8,038*	*5,919*	*4,559*	*2,803*	*3,414*	*2,167*

As indicated in Table 4, placements in the Civil Works Administration classification during 1933 formed by far the greatest bulk of the work of the Division, accounting for 55.8 per cent of the total placements. All types of labor engaged on civil works projects, whether in clerical, professional, or common laboring jobs are included in this grouping.

Building and construction accounted for the next largest group of placements in 1933, with 4,980, or 17.4 per cent of the total. This includes highway construction and other public works projects. Domestic and personal service followed with 3,358 placements, or about 11.8 per cent. All the other industrial groupings had less than 1,000 placements each.

Table 4. — Number of Placements Made by the Division of Public Employment Offices During the Years 1933 and 1932: By Industrial Groups and Offices

Occupations and Industries	1933				1932			
	Boston all Divisions	Springfield	Worcester	Total	Boston all Divisions	Springfield	Worcester	Total
Agriculture	7	291	168	466	11	137	108	256
Building and construction	2,813	1,559	608	4,980	1,656	1,289	606	3,551
Chemicals, oils, paints	18	24	13	55	7	–	–	7
Clay, glass, stone	5	11	1	17	6	–	–	6
Clerical, professional, and technical	230	45	35	310	427	144	16	587
Clothing and textiles	69	19	31	119	76	2	15	93
Domestic and personal service	872	962	1,524	3,358	857	1,003	887	2,747
Food, beverages, tobacco	42	25	4	71	67	8	2	77
Leather, rubber, and allied products	72	4	247	323	64	1	–	65
Lumber, furniture	51	3	14	68	30	17	16	63
Metals and machinery	279	187	74	540	496	87	34	617
Paper and printing	324	29	9	362	243	8	2	253
Transportation and public utilities	201	409	243	853	270	727	412	1,409
Trade	468	127	122	717	233	94	44	371
Civil Works Administration	10,856	2,347	2,726	15,929	–	–	–	–
Miscellaneous	133	147	100	380	568	87	25	680
Totals	*16,440*	*6,189*	*5,919*	*28,548*	*5,011*	*3,604*	*2,167*	*10,782*

Note: Read carefully explanation in text concerning industrial classifications.

Placement of Veterans. — The placement of veterans has been given particular consideration during 1933, because of the preference extended to them in employment on public works and civil works projects.

As shown in Table 5, registrations and placements increased markedly, due in a large measure to the civil works program of the Federal government. Registrations of veterans in 1933 amounted to 11,341, as compared with 3,565 in 1932. Placements of veterans numbered 4,774 in 1933, which exceeded by 3,422 or 253.1 per cent, the number (1,352) of veterans placed in 1932. Of the 22,901 placements of males made during 1933 in all offices combined, 4,774 or 20.8 per cent were of veterans, as compared with 18.3 per cent in 1932.

Table 5. — Number of Veterans Registered and Number of Veterans Placed by the Division of Public Employment Offices During the Years 1933 and 1932: By Offices

Offices	1933		1932	
	Registrations[1]	Placements[2]	Registrations[1]	Placements[2]
Boston (All divisions)	8,786	3,073	2,600	517
Springfield	1,214	1,236	642	725
Worcester	1,341	465	323	110
Totals	*11,341*	*4,774*	*3,565*	*1,352*

[1] Applicants for positions are registered but once each year, regardless of the number of times they apply for positions during the year.

[2] Includes duplications of individuals who were placed in more than one position during the year.

APPENDIX

Table A: Number of placements made by the Division of Public Employment Offices: by years, 1907 to 1933.

Table B: Number of placements made by the Division of Public Employment Offices: by months, 1926 to 1933.

Table C: Number of openings and placements reported by the Division of Public Employment Offices: by months, 1924 to 1933.

Table A. — Number of Placements Made by the Division of Public Employment Offices: By Years, 1907 to 1933

Year	Boston [1] Trades and Labor Office	Boston [5] Clerical and Technical Office	Boston Total	Fall River [3]	Springfield [2]	Worcester [4]	Total all Offices
Fiscal year ending Nov. 30							
1907	14,480 [1]	–	14,480	234 [3]	796 [2]	–	15,510 [6]
1908	9,941	–	9,941	2,583	2,431	–	14,955
1909	13,034	–	13,034	1,541	3,166	–	17,741
1910	15,478	–	15,478	1,421	3,675	–	20,574
1911	15,806	–	15,806	1,042	4,310	–	21,158
1912	19,554	–	19,554	1,641	5,392	–	26,587
1913	20,971	–	20,971	1,269	6,325	552 [4]	29,117 [7]
1914	15,724	–	15,724	1,125	4,685	3,176	24,710 [8]
1915	14,491	–	14,491	942	6,106	5,150	26,689
1916	19,120	–	19,120	1,348	10,999	8,398	39,865
13 months ending December 31,1917	18,747 [9]	–	18,747 [9]	383 [9]	12,344 [9]	9,681 [9]	41,155 [9]
Calendar year							
1918	18,125	–	18,125	–	12,576	9,034	39,735
1919	16,885	–	16,885	–	12,287	8,443	37,615
1920	16,910	–	16,910	–	12,044	8,566	37,520
1921	11,734	–	11,734	–	9,689	7,133	28,556
1922	13,244	1,408 [5]	14,652	–	13,968	9,849	38,469
1923	14,882	1,782	16,664	–	13,677	9,703	40,044
1924	13,037	1,529	14,566	–	10,306	7,316	32,188
1925	14,200	1,538	15,738	–	11,068	8,000	34,806
1926	14,933	1,494	16,427	–	10,252	7,615	34,294
1927	13,721	1,103	14,824	–	8,168	5,866	28,858
1928	13,052	1,656	14,708	–	8,185	5,431	28,324
1929	13,558	1,238	14,796	–	9,071	6,290	30,157
1930	8,760	798	9,558	–	5,753	4,119	19,430
1931	6,149	763	6,912	–	4,092	3,051	14,055
1932	4,373	638	5,011	–	3,604	2,167	10,782
1933	[10]	[10]	16,440	–	6,189	5,919	28,548

[1] Boston (main office) opened December 3, 1906.
[2] Springfield office opened September 4, 1907.
[3] Fall River office opened October 1, 1907; discontinued March 31, 1917.
[4] Worcester office opened September 15, 1913.
[5] Boston (clerical and technical office) opened January 9, 1922.
[6] Twelve months for the Boston office, three months for the Springfield office, and two months for the Fall River office.
[7] Eleven months for the Fall River office (closed during August) and two and one-half months for the Worcester office, opened September 15, 1913.
[8] Eleven months for the Fall River office (closed during August).
[9] Thirteen months for all offices except the Fall River office which was open for four months only, having been discontinued March 31, 1917.
[10] Statistics for all divisions of the Boston office merged upon moving to new Public Works Building.

Table B. — Number of Placements Made by the Division of Public Employment Offices: By Months, 1926 to 1933

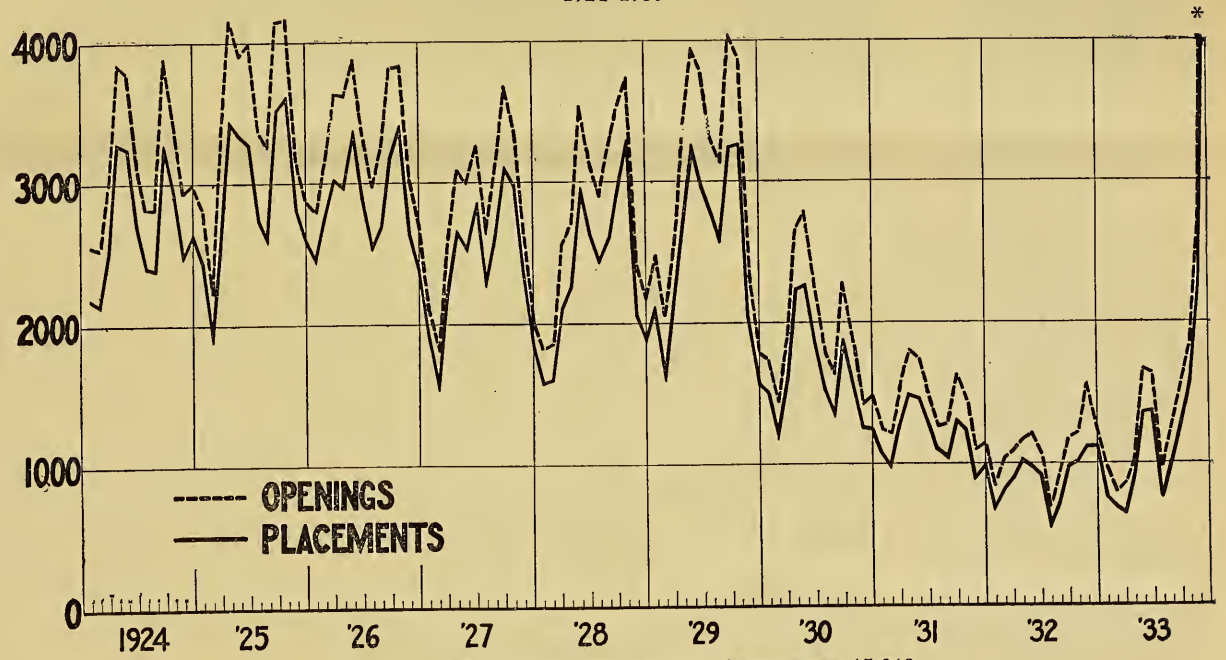
Months	1926	1927	1928	1929	1930	1931	1932	1933
				All Offices Combined				
January	2,451	1,914	1,578	2,095	1,511	1,083	679	762
February	2,762	1,552	1,605	1,620	1,210	978	815	683
March	3,020	2,225	2,105	2,091	1,580	1,261	895	639
April	2,963	2,646	2,262	2,671	2,224	1,482	1,019	904
May	3,366	2,522	2,943	3,237	2,254	1,453	977	1,359
June	2,901	2,833	2,624	2,969	1,850	1,279	911	1,361
July	2,541	2,299	2,446	2,780	1,526	1,082	566	765
August	2,691	2,615	2,586	2,593	1,354	1,032	721	1,002
September	3,175	3,089	2,947	3,239	1,859	1,303	971	1,296
October	3,395	2,974	3,279	3,256	1,573	1,232	1,003	1,572
November	2,630	2,366	2,064	2,031	1,250	888	1,108	2,286
December	2,399	1,823	1,885	1,575	1,239	982	1,117	15,919
Totals	34,294	28,858	28,324	30,157	19,430	14,055	10,782	28,548
				Boston (all divisions)				
January	1,119	993	849	1,038	773	508	317	388
February	1,108	780	813	795	578	453	331	316
March	1,547	1,140	1,145	1,065	788	634	439	258
April	1,374	1,190	1,158	1,247	1,088	700	451	357
May	1,484	1,250	1,544	1,452	1,065	757	429	614
June	1,454	1,423	1,336	1,311	893	622	372	533
July	1,181	1,204	1,294	1,381	679	494	219	302
August	1,368	1,528	1,334	1,333	669	531	270	406
September	1,678	1,713	1,497	1,674	1,015	735	522	491
October	1,674	1,566	1,794	1,640	792	614	505	602
November	1,320	1,180	1,010	1,064	594	401	584	1,144
December	1,120	857	934	796	624	463	572	11,029
Totals	*16,427*	*14,824*	*14,708*	*14,796*	*9,558*	*6,912*	*5,011*	*16,440*
				Springfield Office				
January	811	506	412	653	398	311	236	207
February	1,038	426	502	490	324	303	338	174
March	879	602	587	611	445	361	306	171
April	920	830	672	894	684	431	366	313
May	1,129	747	842	1,100	738	396	335	422
June	821	782	698	1,036	586	365	343	497
July	784	646	687	874	509	305	176	212
August	798	644	784	723	361	272	253	346
September	816	874	968	943	544	328	270	490
October	842	806	876	857	463	383	261	675
November	637	739	590	490	355	310	352	484
December	777	566	567	400	346	327	368	2,179
Totals	*10,252*	*8,168*	*8,185*	*9,071*	*5,753*	*4,092*	*3,604*	*6,170*
				Worcester Office				
January	521	415	317	404	340	264	126	167
February	616	346	290	335	308	222	146	193
March	594	483	373	415	347	266	150	210
April	669	626	432	530	452	351	202	234
May	753	525	557	685	451	300	213	323
June	626	628	590	622	371	292	196	331
July	576	449	465	525	338	283	171	251
August	525	443	468	537	324	229	198	250
September	681	502	482	622	300	240	179	315
October	879	602	609	759	318	235	237	295
November	673	447	464	477	301	177	172	658
December	502	400	384	379	269	192	177	2,711
Totals	*7,615*	*5,866*	*5,431*	*6,290*	*4,119*	*3,051*	*2,167*	*5,938*

Table C. — Number of Openings and Placements Recorded by the Division of Public Employment Offices: By Months, 1924 to 1933

Month	1924		1925		1926		1927		1928	
	Openings	Placements	Openings	Placements	Openings	Placements	Openings	Placements	Openings	Placements
January	2,555	2,178	2,816	2,443	2,787	2,451	2,092	1,914	1,809	1,578
February	2,538	2,141	2,223	1,898	3,133	2,762	1,813	1,552	1,852	1,605
March	2,991	2,520	3,157	2,601	3,630	3,020	2,571	2,225	2,554	2,105
April	3,840	3,281	4,161	3,430	3,605	2,963	3,090	2,646	2,702	2,262
May	3,768	3,246	3,901	3,335	3,868	3,366	2,993	2,522	3,532	2,943
June	3,167	2,707	3,995	3,263	3,332	2,901	3,251	2,833	3,106	2,624
July	2,820	2,409	3,364	2,745	2,972	2,541	2,628	2,299	2,895	2,446
August	2,808	2,389	3,238	2,590	3,261	2,691	3,094	2,615	3,232	2,586
September	3,888	3,258	4,144	3,510	3,810	3,175	3,676	3,089	3,536	2,947
October	3,422	2,941	4,159	3,598	3,823	3,395	3,368	2,974	3,726	3,279
November	2,925	2,484	3,156	2,809	3,026	2,630	2,613	2,366	2,409	2,064
December	2,993	2,634	2,879	2,584	2,692	2,399	2,009	1,823	2,174	1,885
Totals	*37,715*	*32,188*	*41,193*	*34,806*	*39,939*	*34,294*	*33,198*	*28,858*	*33,527*	*28,324*

Month	1929		1930		1931		1932		1933	
	Openings	Placements	Openings	Placements	Openings	Placements	Openings	Placements	Openings	Placements
January	2,482	2,095	1,737	1,511	1,245	1,083	838	679	981	762
February	2,052	1,620	1,439	1,210	1,214	978	1,040	815	798	683
March	2,561	2,091	1,908	1,580	1,574	1,261	1,095	895	859	639
April	3,404	2,671	2,657	2,224	1,795	1,482	1,172	1,019	1,050	904
May	3,928	3,237	2,787	2,254	1,741	1,453	1,212	977	1,671	1,359
June	3,772	2,969	2,248	1,850	1,495	1,279	1,065	911	1,632	1,361
July	3,315	2,780	1,775	1,526	1,260	1,082	692	566	987	765
August	3,137	2,593	1,627	1,354	1,286	1,032	936	721	1,274	1,002
September	4,042	3,239	2,265	1,859	1,625	1,303	1,180	971	1,576	1,296
October	3,871	3,256	1,882	1,573	1,444	1,232	1,210	1,003	1,848	1,572
November	2,348	2,031	1,425	1,250	1,098	888	1,569	1,108	2,753	2,286
December	1,783	1,575	1,478	1,239	1,138	982	1,248	1,117	16,237	15,919
Totals	*36,695*	*30,157*	*23,228*	*19,430*	*16,915*	*14,055*	*13,257*	*10,782*	*31,666*	*28,548*

OPENINGS FOR EMPLOYMENT AND PLACEMENTS
DIVISION OF PUBLIC EMPLOYMENT OFFICES
1924–1933



*December 1933 Openings, 16,237; Placements, 15,919.

REPORT OF THE BOARD OF CONCILIATION AND ARBITRATION

Edward Fisher, *Chairman*, Herbert P. Wasgatt, John L. Campos

On December 1, 1932, one joint application was pending. During the year 110 joint applications were filed (several of which included groups of employers), making a total of 111. Of these, 20 cases were abandoned, withdrawn or settled; decisions were rendered in 79 cases and 12 are now pending. In addition, three petitions for certificates of normality were filed.

Conciliation

The year 1933 has been a very exacting one, calling upon the Board for constant and continued activity in its work of conciliation and arbitration of industrial disputes arising between employers and employees. The upturn in business, accompanied by an anticipation of further improvement therein, aroused the employees in many lines of industry to an effort to recover, in part at least, reductions previously made in their wage rates and to obtain changes in working conditions and hours of employment, with the result that numerous labor controversies arose, in many instances resulting in a cessation of work. The likelihood of this occurrence was referred to in the last annual report of the Board.

The improvement in business with the consequent increase in employment, stimulated by the National Industrial Recovery Act, commonly cited as the N. R. A., with its accompanying provision relative to collective bargaining, has naturally encouraged employees through organizations to seek recognition. While naturally this has led to confusion and conflict and some serious industrial controversies, yet all in all the situation has been met by both employers and employees in a spirit of accommodation. It is to be noted that the provision relative to collective bargaining under the N. R. A. has in some instances militated against the long-continued and harmonious relationships existing between employers and union employees, notably in the shoe industry in what is commonly known as the South Shore, in Brockton and vicinity.

By reason of the serious labor controversies occurring in the shoe industry, one of the leading industries of the Commonwealth, the services of the Board have been to a considerable extent engaged in endeavoring to adjust the same. Previous to the depression, generally speaking, the shoe industry, especially in the large manufacturing centers, operated under union agreements. During the depression, however, other than on the South Shore hereinbefore referred to, the employees became disorganized and what are commonly termed open-shop conditions in these centers became common. Early in the year, however, and continuing thereafter a determined effort was made by the employees, not only to restore their organizations to their former position in these manufacturing centers but also to extend the organization of employees into communities not theretofore organized. In this respect they were undoubtedly stimulated by the collective-bargaining provision contained in the N. R. A. Under these circumstances the resulting increase in labor controversies with a cessation of work presented to the Board difficulties involving not only wage rates, working conditions and hours but also union recognition. To meet this condition a basis of agreement for settlement was instigated by the Board, which is commonly known as the "Hudson Agreement," arising out of an adjustment made in Hudson in the shoe industry.

The following is a brief history and outline of this agreement. The foundation of this method of adjusting a labor controversy was laid in 1923, when an unusual condition arose in that the Armstrong Transportation Company, although finally in accord with its employees, taxicab drivers, as to the terms upon which their relations as employer and employees were to continue, refused to sign a union agreement. A recommendation was then made by this Board that each party sign a separate agreement of the same tenor and file it with the Board, this to be recognized as an agreement by each party with the Board to fulfill and carry out its terms. This was done and the controversy thus amicably adjusted.

In Hudson a labor controversy arose in the shoe industry, the details of which will be later referred to. This controversy finally assumed the aspect that the employer and employees were in accord, or nearly so, as to the terms of a settlement except the signing of a closed-shop agreement. This the manufacturer declined to do. With the foregoing adjustment in mind, the Board made a recommendation, incorporating therein as a basis of settlement substantially the terms on which the parties were more or less in accord, without the provision for a closed shop; the agreement to be filed with the Board after being signed by the representatives of the respective parties. Under this recommendation the employees enjoyed the benefit of what might be termed the usual provision of a union agreement as to working conditions, provisions for adjusting wages and hours of labor and the privilege of shop representation. The employer in turn was afforded the guaranty of continued work without cessation through strike or other action and was not restricted in his right of employment. This basis of settlement has proved to be a fair and reasonable one for adjusting a labor controversy where the issue, often insurmountable, arises under a demand for a closed shop, affording as it does a reasonable compromise, the employees securing practically all the requests except the closed shop and the manufacturer the guaranty above referred to. The result has naturally been that the employees are represented, to a great extent if not wholly, by a union agent and a trial period is afforded during the term of the agreement for the parties, employer and employees, to become actually acquainted with and experience the results of such contractual relations.

In the following the Board outlines briefly its major activities through conciliation in adjusting labor controversies in the shoe industry.

Haverhill. A strike of the shoe operatives took place in this city on March 6, ultimately involving about 8,000 employees and practically paralyzing this industry. The demands were for increases in wages and the question of union recognition was also involved. This latter, however, was not a serious obstacle as the manufacturers as a rule were not opposed thereto. As a result of conferences of representatives of the parties it appeared that while the manufacturers were prepared to give some increase as a temporary basis of adjustment, stated to be 10%, the employees were insistent on at least a 15% increase. Efforts to compose these differences proving ineffective, the Board held a public hearing on March 21 in the City Hall in Haverhill as a part of its investigation for the purpose of placing the responsibility for the strike and its continuance. At this hearing the employees were represented by Dennis A. Kelleher, district agent, and the manufacturers' association, comprising twenty-one members, by Fred L. Cooper. Mr. Cooper, in speaking for these manufacturers, who represented so far as production was concerned but not in numbers a major portion of this industry, recognizing that there existed a great divergence in prices in the factories throughout the city and also recognizing that a readjustment in wage rates was justified, submitted the following suggestion as a temporary basis of settling the labor controversy; that a check-up be made and the manufacturers in the various grades pay the highest price for each operation which was being paid in any factory in that grade; thereby securing an equalization of prices based upon grades. It was also recognized that in many instances material increases in wage rates would follow from such equalization. During and after the completion of the hearing the Board submitted recommendations, which after further conferences and with interpretations were accepted by the parties as a basis of settlement, as follows:

"That the employees return to work immediately in the factories in Haverhill in so far as business conditions and employment warrant.

"That an investigation be commenced at once in each of the factories in which a labor controversy exists through expert assistants to be named by the locals and the manufacturers to check up the price-lists and determine what is the highest price paid on March 6, 1933, in any of these factories for each operation in the various grades.

"This investigation to be made under the supervision of Mr. Cooper, representing the manufacturers, and Mr. Kelleher, representing the employees.

"The experts to be sworn in and serve at the expense of the Commonwealth.

"The highest price paid on March 6, 1933, for any operation in any one of these factories to be the price paid to the employees for that work, same to start with the first payroll week."

This controversy was thereby adjusted and work was resumed on March 27. The experts nominated by the parties commenced the check-up of prices under the direct charge of Mr. Cooper and Mr. Kelleher, representing the Board. This check-up proved to be somewhat more of an undertaking than was anticipated. It was finally completed the latter part of May. The Board during this period was called upon on several occasions to make rulings and interpretations on issues arising. It has been estimated that the loss in payrolls to the employees during this controversy was at the rate of approximately $150,000 per week.

Newburyport. On March 13 a strike of shoe operatives occurred in Newburyport. This strike affected about 2000 employees and was for an increase in wages and the accompanying demand for union recognition. Newburyport was what is commonly termed an open-shop town. Strong efforts were made by Mayor Morrill and other agencies to compose the differences. These efforts proving unsuccessful, the Board called a conference of the parties in the City Hall in Newburyport on March 31 and recommendations were made for adjustment. These recommendations not proving acceptable to the employees, further conferences were held and a date fixed and announced for holding a hearing to place the responsibility for the strike and its continuance. The conferences were resumed on the date set for the hearing and continued, with the result that finally an adjustment was reached and on April 8 six factories signed an agreement with the Shoe Workers' Protective Union, with a provision for arbitration of prices by the State Board.

Hudson and Marlborough. In March the employees of the Corbin-Holmes Company in Hudson made a demand for an increase in wages with an accompanying request for union recognition. The company posted notice granting an increase of 10% in wages, to be effective March 30. This being unsatisfactory to the employees they went on strike on that date. The company normally employed about 470 operatives. Conferences were held between the parties and also with the Board and as a result it was apparent that the parties were substantially in accord on terms of settlement except union recognition. This the company declined to accede to. The company, however, offered to submit the entire matter to the Board for arbitration but the employees declined to do so. As a result, having in mind the basis of adjustment reached in 1923 in the Armstrong Transportation controversy, which has been previously referred to, the Board made recommendations embodying in detail the terms of settlement without union recognition. The recommendations of the Board with some attached interpretations were finally accepted by both parties and thus the "Hudson Agreement" came into being. The employees returned to work on April 10.

A strike also occurred in the B. A. Corbin & Son Company of Marlborough on March 20, the company employing approximately 200 operatives. This company agreed to submit all the differences to arbitration, which was not acceptable to the employees, there being a demand for 15% increase in wages and a request for union recognition. The parties themselves after some conferences finally reached an adjustment on the basis of the Hudson settlement and the employees returned to work on April 14.

Lowell. In the past on several occasions unsuccessful efforts have been made to organize the employees in the shoe industry in this city. During the winter and spring such efforts were made on the part of the Shoe Workers' Protective Union. A strike occurred on April 7, accompanied by demands upon the part of the employees for increased wages, improved working conditions, etc. The strike continued for several weeks, resulting ultimately in a cessation of work by between 3000 and 3500 employees. The controversy centered on the factory of the Becker Brothers Shoe Company, Inc., employing nearly one-third of these operatives. This factory took legal proceedings by way of injunction and continued to operate for some time. However, the disturbance became so serious, resulting in outbreaks and conflicts, that this factory finally closed and the company withdrew from the city. In one other factory, the C. V. Watson Company, very few of the employees quit work but on account of the continued hostile demonstrations this company removed its factory. Few employees left at the John Pilling Shoe Company, which company also took legal proceedings and continued work without serious interruption, although there were hostile demonstrations in the vicinity of this factory. Soon after the strike Mayor Slowey designated a citizens' committee of prominent

men, who made strenuous and energetic efforts to compose the differences through conferences with representatives of the employers and of the employees. In the meantime the Board kept in close communication with the efforts being made to settle the differences, but in accordance with its established policy did not attempt to interfere or inject itself therein as long as this committee was continuing its efforts. Finally, the efforts of this committee proving unavailing, on April 27 an invitation was extended to the employees to confer with the Board at City Hall the following morning, and to the representatives of the employees to confer in the afternoon.

On April 28, at the conference in the morning only five manufacturers were represented: the United Novelty Shoe Company, Inc., the Merrimack Shoe Manufacturing Company, the Majestic Shoe Company, the Fashion Wood Heel Company and the Alden Wood Heel Company. The issues were discussed with these representatives in detail, the outstanding obstacle being the recognition of the union. In the afternoon the Board conferred with the representatives of the employees, including Mr. Nolan, the president of the Shoe Workers' Protective Union, the questions of increases in wages, improved working conditions and union recognition being discussed.

The Board on May 8 submitted to the twelve manufacturers and representatives of the employees its recommendations for the settlement of this controversy. These recommendations, however, were not accepted. The employers were unwilling to enter into a conference with the representatives of the employees. The Board, however, continued in its efforts and in the meantime his excellency, Governor Ely, conferred with the representatives of the parties in an effort to compose the differences. It seemed apparent to the Board that if any adjustment were to be made, in all probability it would have to be on the basis of the so-called "Hudson Agreement" hereinbefore referred to, and it renewed its efforts, having numerous conferences with the employers and representatives of the employees. As a final result, after joint conferences with representatives of the manufacturers and of the employees, which joint conferences the Board had finally succeeded in arranging, four factories — the United Novelty Shoe Company, Inc., the Merrimack Shoe Manufacturing Company, the Majestic Shoe Company and the Lowell Shoe Company — reached a tentative agreement which was acceptable to the employers and which the employees' committee was to submit to the employees for acceptance. At the meeting of the employees on May 24 this agreement was accepted as a basis of settlement and signed agreements were entered into by the Lowell Shoe Company, the Merrimack Shoe Company and the United Novelty Shoe Company, Inc., and the employees on Saturday, May 27, and the factories were reopened for employment on the following Monday. The Majestic Shoe Company was not represented at the meeting of May 27 but signed a similar agreement on June 10. This marked the end of a very severe labor controversy.

Athol. On March 24 a strike of the operatives of the Ansin Shoe Manufacturing Company and the Anwelt Shoe Company occurred, these two companies employing approximately 700 operatives. The agent of the Board visited Athol and endeavored to conciliate the differences. Later, however, the companies entered legal proceedings and while the legal proceedings were pending the chairman was called to Athol and conferred with the counsel and representatives of both parties. The result was that on April 21 an agreement was signed, based on the "Hudson Agreement," and the employees returned to work. The differences relative to prices were later arbitrated before the Board. The Merit Shoe Company, also of that city, employing about 400 operatives, signed a similar agreement a few days later and work was resumed.

Salisbury. On March 15 a strike of the employees of the Ruth Shoe Company in Salisbury occurred. This company had employed about 400 operatives. Various efforts were made to compose their differences and later legal proceedings were taken and an injunction issued limiting the picketing. All efforts for adjustment failing, the Board held a hearing in Salisbury on May 4 for the purpose of placing the blame for the strike and its continuance. In the meantime the Board continued with its efforts to secure an adjustment and, failing in this respect, held a further and final hearing on June 16. Further efforts to compose the differences having failed, the Board issued its report placing the responsibility for the strike and its continuance, a copy of which is contained in this report.

Brockton. For many years an agreement known as the "Stamp Contract" has existed between the manufacturers in Brockton, members of the Brockton Shoe Manufacturers' Association, and employees, members of the Boot and Shoe Workers' Union, under the terms of which all differences which could not be adjusted were arbitrated before the State Board. This contract has proved very valuable to both the employers and employees, as during a period of approximately 35 years only two major labor controversies have arisen resulting in the cessation of work, neither of which controversies had the sanction of the union officials. Recently changes were made in the organization machinery of this union in order to expedite the settlement of wage rates. This caused considerable disaffection and a large body of the workers expressed a feeling that under the collective-bargaining provision (Section 7-a of the National Industry Recovery Act) they were entitled to declare that the Boot and Shoe Workers' Union no longer represented their interests, even in face of existing contractual relations. A serious controversy followed, resulting in the fall in the cessation of work by thousands of employees in this city. Out of this controversy developed a new organization of employees known as the Brotherhood of Shoe and Allied Craftsmen, which enrolled in its membership the bulk of the employees and for the present has supplanted the Boot and Shoe Workers' Union as an active organization. The Boot and Shoe Workers' Union, however, still maintains its organization and a membership in this community.

Among the other serious controversies which have arisen is that of a strike of the leather workers in Peabody, Salem and Lynn, which occurred on March 25. This arose through the low wage rates paid in some instances and was accompanied by a further demand on the part of the employees for union recognition. In all about 8000 employees were involved. Strong efforts were made by local authorities to adjust this controversy. The Board through its agent endeavored to adjust these differences, supplementing the efforts of the mayors of the various communities. Later conferences were held in the office of the Board, with the employers on the morning of April 12 and with a committee of employees in the afternoon. At this time the Board discussed recommendations for an adjustment, but such recommendations were not acceptable to the employees and the controversy continued. Later a citizens' committee was appointed which took up the matter and was successful after very strenuous efforts in securing an adjustment through the signing of an agreement, having as its basis the "Hudson Agreement" already referred to. As a result this controversy, which resulted in serious disturbances and outbreaks, was adjusted and employment resumed May 3.

Outline and Comparison of Labor Controversies. The frequency of labor controversies leads to a conclusion that the year 1933 is a record one in this respect. While the labor controversies have greatly increased over those of the past few years, notably since 1921 and more especially since 1924, from which latter date comparatively speaking such controversies have materially declined, yet it is interesting and illuminating to note the comparison with reference to the period during the latter part of and following the World War; for instance, from 1917 to 1920, both inclusive, it will be found that the industrial conflicts between employers and employees were greatly in excess of those arising during the year 1933. Taking the records available at this office, one finds that these controversies varied, during this period from 1917 to 1920, from 433 in one year to 319 in another, averaging for the four years 391. In comparison, the labor controversies for the current year are only about one-half of this average.

Arbitration

The settlement of the many labor controversies in the shoe industry, both through the good offices of the Board and other agencies, resulted in the Board's being called upon to arbitrate prices in this industry in many centers throughout the Commonwealth. Following the settlement of the strike of shoe operatives in Lynn, Boston and Chelsea during the winter, the Board in the spring arbitrated under a joint application the prices in these factories, thirty-nine in number, rendering its decision on June 19. In addition, the Board for the first time was called upon to grade factories. Later in the summer after a labor controversy in this district, a settlement of which was made in Washington, the Board was again called

upon to arbitrate prices in forty-four factories. The duties in this respect were somewhat onerous, accompanied again with the obligation to grade the factories; nevertheless, the Board completed its work and rendered a decision, dated November 6, but by reason of the difficulties arising in the grading of the factories this decision did not become operative until November 27. Among the other centers in which the Board acted as arbitrator in the shoe industry are Athol, Hudson, Lowell, Marlborough, Milford and Newburyport.

List of Industries Affected and Principal Differences in Conciliation and Arbitration Cases

Conciliation

Industries Affected: Baking, Bedding, Building, Coal, Clothing, Cranberry, Furniture, Granite, Hat, Harvesting, Milk, Necktie, Paper, Shoe, Tanning, Teaming, Textile, Theater.

Principal Differences: Wages, Working Conditions, Discharge.

Arbitration

Industry Affected	*Issues Arbitrated*
Shoe	Wages, Working Conditions, Discharge

NORMALITY

Certificates of normality were granted to H. E. Fletcher Company of Chelmsford, Golden Leatherboard Company of Haverhill and the Methuen Heel Company of Methuen.

REPORT OF THE MINIMUM WAGE COMMISSION

Edward Fisher, *Chairman;* Herbert P. Wasgatt, John L. Campos;
Mary E. Meehan, *Acting Director*

Outline of Functions

The duties of the Minimum Wage Commission under the law comprise the following functions: investigating the wages of women employees in occupations where there is reason to believe that the wages of a substantial number are below the requirement of healthful living; establishing wage boards to recommend minimum rates for women and minors; entering wage board decrees based on the recommendations of the boards; inspecting to determine compliance with the decrees; reconvening wage boards to meet changes in the cost of living; publishing the names of employers found violating its decrees and, under the provisions of Chapter 220 of the Acts of 1933, the tagging of goods by manufacturers paying wage rates in violation of the decrees and the posting of notice by retail dealers selling goods so manufactured.

Outline of Activities

As indicated in the report for 1932, the Commission entered upon the present year with a heavy list of non-compliances in the various occupations coming under the provisions of the twenty-two decrees, by far the greater number being under the retail store decree. This situation, occasioned by reason of the continued depression, apparently reached its peak during the year. The Commission has, however, continued in its efforts for compliance through investigation, conferences, reasonable extensions and the avowed intention of resorting to publication if necessary in order to secure compliance. In these efforts the Commission has received not only the co-operation and support of numerous employers in the various occupations, but also a decisive and encouraging response from the public, insisting that employers put into effect wage rates at least sufficient to meet living requirements. Thus, coupled with an improvement in business conditions, compliance was secured in many instances and in others a most decided improvement was noted in the then existing wage rates, although not in all instances sufficient to meet the minimum rates of the decrees. While such improvement is in and of itself very reassuring, yet the Commission still faces the problem of continuing with its efforts in endeavoring to secure full compliance. Increases in wage rates have inured to the benefit not only of the employees and incidentally of the public, but also of those employers who have been anxious and desirous of complying with the decrees but have been handicapped by the unfair and unwarranted competition of other employers paying low wage rates. The enactment by Congress of the National Industrial Recovery Act, commonly referred to as the N. R. A., and the inauguration of the President's Re-employment Agreement, commonly known as the P. R. A. or temporary code, followed in turn by the adoption of permanent codes, have produced substantial improvement in business and in the conditions of the working people both by increasing employment and raising wage rates, although not in all instances, as stated above, bringing the rates to the level of the State's minimum wage decrees. With this very gratifying situation, however, have also arisen many troublesome questions and some confusion as to the relations between the codes and the minimum wage decrees.

It has been generally recognized and has been the position of the Commission from the start that the N. R. A. and codes established thereunder do not supersede or suspend the minimum wage decrees and the Commission has endeavored, through contact and co-operation with those in charge of enforcing the codes, and employers as well, to harmonize or at least minimize such differences. In the matter of hours, the minimum wage decrees are for full time employment and are based upon the number of hours per week required by the employer and permitted by the laws of the Commonwealth. Such being the case, the Commission by reason of the shortening of the weekly working period under the codes in occupations coming under the provisions of the decrees, has ruled that the minimum wage rates are to

continue to be paid for the shorter work period. Otherwise the basic principle of the minimum wage law, which is that a week's wages should be sufficient to support the employee decently, is largely nullified. Naturally some confusion has arisen and time and patience have been factors in applying and endeavoring to make effective this ruling.

Wage rates in many instances are lower under the codes than under minimum wage decrees. In this connection it must be borne in mind, as pointed out in the last annual report, that the decrees with one exception were established during a period when business conditions and wage rates generally were at a higher level, as well as living costs. The Commission is aware of this, and is also frequently reminded of the fact that one purpose of the N. R. A. and the codes is to provide fair and uniform wage rates. Nevertheless, it is generally recognized and specifically stated in some codes that where the state provides a higher wage rate than the codes, the former is to prevail.

Since the minimum wage law is recommendatory and not mandatory, the only penalty for enforcement being, previous to the enactment of Chapter 220 of the Acts of 1933, publication of the names of offenders, the contention is made by some employers, notably in the case of the chain stores, that the minimum wage decrees are not to be recognized as law. More detailed reference will be made to this contention later. However, in many instances, the differences in rates between the codes and the decrees are not great and many employers have readily and willingly continued to pay the rates under the decrees when higher.

The Commission is faced with another problem arising under the retail store decree. Under the code for the retail trade, minimum wage rates are based upon population, which basis has never been recognized under the minimum wage law of this Commonwealth, the decrees applying equally to all employees in the occupation wherever employed. While the highest minimum rates under the code are in some respects in excess of those under the state decree, nevertheless by reason of the graduation downward of the rates under the code, based upon population, the minimum code rates in all communities except Boston are not only below, but in the smaller communities considerably below the rates under the retail store decree. The code, however, in Article 6, Section 6, makes the following provisions:

> "Conflict with state laws. When any *state law* prescribed for any class of employee of either sex a higher minimum wage than that prescribed in this article, no employee of such class of either sex employed within that state shall be paid less than such state law requires."

The Commission has taken the attitude from the first, which apparently is substantiated by the provisions of this section, that the minimum rates established under the retail store decree are to be paid when they are in excess of the minimum rates under the code, and further, has understood that such was the attitude of the Federal authorities entrusted with the enforcement of the codes. Nevertheless, the contention is made by at least some of the chain stores that this section of the code does not require that the rates established under the minimum wage decree are to be paid when in excess of the minimum code rates for the reason that the Massachusetts minimum wage law is recommendatory and not mandatory, the only penalty for failing to comply therewith being publication or action taken under Chapter 220, as referred to above. Therefore, the claim is made that the decrees are not a *law* in the meaning of that word as used in Section 6, above quoted. At least one of the chain stores is asking an official ruling to that effect from the authorities at Washington. However, the Commission is continuing with its investigations under this decree and at the close of the year the results of the investigation, in so far as carried on, indicate that the chain stores as a rule in the communities outside of Boston are not complying with its decrees, although presumably complying with the code. This is a matter of serious concern and the Commission, after consultation with the office of the New England Regional District Compliance Board, is awaiting an official ruling from Washington pending taking further action. Other issues have also arisen, the details of which the Commission at this time will not attempt to enumerate.

No wage boards have been established during the year.

Home Work

For some time the Commission has been faced with the situation that in some occupations coming under the provisions of the minimum wage decrees work was being performed at home by women, and as a result the following rulings were made:

1929

"When the agents are inspecting in an establishment where home work is given out, they should explain that the decree applies to home workers as well as factory workers and should ascertain what records for home workers are kept."

1932

"Voted that employers in any occupation coming within the provisions of a minimum wage decree be required to keep a record of the females to whom any so-called home work may be given. Such record shall indicate the name, address, occupation, rate and amount paid each, and be distinct from other payroll records."

Following these rulings, the Acting Director made an investigation during the current year of the conditions and problems involved in this employment. The investigation also involved matters outside the province of the Minimum Wage Commission's work. An outline of the investigation, in so far as it relates to minimum wage, is herewith submitted, without tabulation of the statistical information secured:

Purpose. — An investigation was made during the month of January, 1933, to determine the extent and the earnings relative to work given out by factories to be done in private homes in Massachusetts.

Procedure. — A mailing list was compiled from various sources of material. Questionnaires requesting information were sent to 104 firms in regard to women engaged in home work in connection with their establishments.

Adequate Response. — Eighty-eight replies were received. Of this number, thirty-six reported the employment of a total of 455 women. The number of firms reporting discontinuance of home work was seventeen.

Localities. — The localities employing the greater number of home workers were: Boston, reporting the largest number of individual home workers, seventy-five; Worcester reported sixty; Northampton, fifty-nine; Danvers, forty-nine; and Marlboro, thirty-seven. Other cities employ lesser numbers.

Type of work. — For the most part the type of work may be included within the provisions of the Boot and Shoe Cut Stock and Findings, Brush, Knit Goods, Men's Furnishings, Muslin Underwear, Pocketbook and Leather Goods, Stationery Goods and Envelopes, and Toys, Games and Sporting Goods Decrees. The largest amounts of earnings were paid in the Pocketbook and Leather Goods, and in the Stationery Goods and Envelope industries.

Earnings and Method of Payment. — Piece rates was the general method of payment for work done by home workers. There was no way of determining the average earnings for a definite time, as records of hours were not kept. Estimates of the time required to do the work were made in a few cases by representatives of establishments. Based on these estimates, 15c, 16c, 20c, 25c, 30c, and 35c an hour was paid. It would seem that such estimates or records of time would not be worth consideration, since more than one member of the family often does the work. The earnings paid for a month or less within a recent period ranged from $1 to $543.00. In some families, where there was more than one home worker, the earnings of all were paid in a lump sum, the earnings of each worker could not be calculated. In most instances there were other sources of income. The reported earnings cannot be taken as usual, as there is irregularity in home work as in any other type of work. The earnings for the month of December were large on account of the Christmas trade.

The problem of wage rates and earnings under this type of employment is one difficult to control, especially with reference to securing definite and accurate information as to the period worked by these employees. The Commission is continuing with its endeavor to have this information correctly kept and available upon the records of the employers coming under the provisions of its decrees.

Advertisement of Non-Compliances

(*See* Table 1)

Having completed the investigation under the retail store decree, which has necessarily occupied some time by reason of the fact that a large majority of the communities had to be visited, publication was made on June 27 of the firms found to have non-compliances. This publication was the most extensive ever made by this Commission, both as to the number of firms, employees and communities affected, and also, the most expensive and was the fourth publication under this decree. This was the only publication made by the Commission during the year, as with the advent of the N. R. A. and codes in process of establishment, accompanied by a material improvement in wage rates, it seemed advisable for the present at least to defer further action in this respect.

Inspections

In addition to the regular inspection work, the Commission has made both inspections and reinspections in co-operation with the federal authorities and also in response to occasional requests of labor departments in other states, in the latter case in order to secure information particularly in regard to wage rates, hours and earnings in firms from whom goods for public distribution were in contemplation of being purchased. In addition, by reason of the numerous inquiries from employers, it has been found advisable to have the investigators acquaint themselves with the provisions of the codes in occupations coming under the minimum wage decrees in order to explain such differences as are found to arise between the provisions of the codes and the decrees, especially where the wage rates are higher or other provisions more stringent under the decrees than under the codes.

During the year the Commission has completed inspections initiated in 1932 under the following decrees: men's furnishings, muslin underwear, pocketbook and leather goods, retail stores, women's clothing and stationery goods and envelopes.

Inspection has also been initiated under the following decrees: jewelry and related lines, boot and shoe cut stock and findings, bread and bakery products, brush, candy, canning and preserving and minor lines of confectionery, druggists' compounds and proprietary medicines, electrical equipment and supplies, knit goods, laundry, millinery, office and other building cleaners, paper box and toys, games and sporting goods. Inspection has been completed in all except jewelry and related lines. In addition to the regular work there have been inspections or reinspections under each of the other decrees; as a rule either on complaint or as a check-up on the part of the Commission preliminary to publication for non-compliance.

In the regular inspection work, wage records for tabulation were secured for 36,148 women and girls in 1733 firms. An unusually large number of reinspections were made, occasioned to some extent by the N. R. A. and in co-operation with the authorities in charge thereof. In addition investigations have been made of the following occupations not coming under any decree to determine the wage rates and earnings: waitresses, 53 establishments employing 968 women; rubber shoes, 3 establishments with 704 women employees and 34 miscellaneous industries employing 1,520 women; thus making a grand total of 55,527 wage records secured in 2378 establishments.

Reinspection of Inspection Cases

Disposition of Non-Compliances Pending from Previous Years

(*See* Table 2)

At the beginning of the fiscal year there were outstanding, as appears from the report of the previous year, 10,861 cases of non-compliance in 751 establishments. To these should be added, however, 21 cases in two establishments, inadvertently omitted. Most of these came under the retail store decree, 6,152 cases in 525 establishments, a majority of which had been advertised before. There were also 711 cases in 23 pocketbook and leather goods firms; 710 cases in 28 muslin underwear establishments; 673 cases in nine jewelry and related lines establishments; 529 cases in 42 laundries; 471 cases in 34 men's furnishings establishments and 444 cases in 13 stationery goods and envelope factories. The remaining cases were divided among the following decrees: boot and shoe cut stock and findings, bread

and bakery, brush, candy, canning and preserving and minor lines of confectionery, corset, druggists' compounds and proprietary medicines, electrical equipment and supplies, knit goods, men's clothing and raincoat, millinery, office and other building cleaners, paper box, toys, games and sporting goods and women's clothing.

Adjustments. — As a large proportion of these cases were in establishments previously published, a difficult problem was presented of securing compliance. However, the Commission has been reasonably successful in securing adjustments, and in many cases where compliance was not secured, substantial increases in wage rates were made. Wages were raised to meet the provisions of the decrees in 1,025 cases in 111 establishments. Adjustments by change of work, hours or method of payment whereby the employees were enabled to earn the minimum were made in 71 cases in 31 establishments. There were 23 employees in seven establishments covered by the piece rate ruling and in 1,642 cases in 239 establishments it was reported that the employees had left or had been laid off. One hundred seventy cases in 33 establishments were reported as out of business, 50 cases in 21 establishments were incorrectly recorded, while 58 cases in eight establishments were not under the decree. Adjustment was promised or reported in 112 cases in 37 establishments, 30 cases in eight establishments were earning the minimum after being transferred to piece work. One establishment employing 14 women moved from the state; eight cases in five establishments were recorded as special license types and 358 cases of technical non-compliance were found in 56 establishments.

Advertisement. — The only firms advertised were those coming under the retail store decree including 4,163 cases in 317 establishments.

Cases Pending. — There were outstanding at the close of the year 3,158 cases in 154 establishments mainly under the jewelry and related lines, muslin underwear, pocketbook and leather goods and retail store decrees.

Disposition of New Cases Found in Firms with Cases Outstanding from Previous Years

(*See* Table 3)

In the course of reinspection of firms with cases outstanding from previous years, 3,207 new cases were found in 245 establishments. Here again the problem of the retail stores, previously referred to, comes to the front as a majority of these, 1,930 cases in 171 establishments, came under the retail store decree; the remaining cases were under the bread and bakery, electrical equipment and supplies, jewelry and related lines, knit goods, laundry, men's clothing, men's furnishings, muslin underwear, paper box, pocketbook and leather goods, toys, games and sporting goods, stationery goods and envelopes and the women's clothing decrees.

Adjustments. — As many of these cases were in establishments that had never complied, the Commission faced difficulties in endeavoring to secure adjustments. In 195 cases in 23 establishments wages were raised to meet the provisions of the decrees. Adjustment was promised or reported in six establishments employing 53 women, while ten employees in four establishments were covered by piece-rate ruling; five employees in one establishment had their hours reduced to conform with the decree and 12 employees in seven firms were reported as left or laid off. Five employees in two establishments came under the ruling of technical non-compliance.

Advertisement. — Seventeen hundred and seventy-two cases in 148 retail stores were advertised in 1933.

Cases Pending. — There were pending at the close of the year 1,155 cases in 59 establishments, mainly under the jewelry and related lines, laundry, men's furnishings, muslin underwear, pocketbook and leather goods, retail store, stationery goods and envelope and women's clothing decrees.

Disposition of Cases in the Regular Inspection Work

(*See* Table 4)

In the regular inspection work 7,932 cases of non-compliance were found in 563 establishments. While this represents a decided improvement over that of the past year both as to numbers of establishments and cases, the situation is far from satisfactory.

Adjustments. — In the cases settled wages were raised for 653 women in 90 establishments. Adjustments by change of work, hours or method of payment whereby the employees were enabled to earn the minimum were made in 41 cases in 11 establishments. Adjustment was promised or reported in 445 additional cases in 78 establishments. There were 78 employees in 16 establishments who came under the piece-rate ruling. This ruling provides that in cases of experienced operators where the great majority on a given operation are earning the minimum or over, the rates are considered to be in accordance with the decree. In six establishments 10 employees were covered by the special license provision; in 268 cases in 52 establishments it was reported that the employees had left or were laid off. Seven establishments employing 403 women were reported as out of business. There were also 58 cases in 13 establishments that did not come under the decrees; three cases in one establishment that was incorrectly recorded and 338 cases in 30 establishments that were considered as technical non-compliance.

Advertisements. — There were 45 establishments with 934 cases of non-compliance that were advertised during the year. These were under the retail store decree.

Cases Pending. — At the close of the year there were pending in the regular inspection work 4,701 cases in 281 establishments.

Conclusion

In 1921 the Commission in its annual report recommended that the Massachusetts law be made mandatory. The legislature, however, failed to enact such legislation and perhaps wisely as in 1923 the United States Supreme Court in Atkins *vs.* Children's Hospital, 261 U. S. 525, by a majority opinion held that a mandatory minimum wage law established in the District of Columbia was unconstitutional. The decision was later concurred in in several instances by both state and federal courts. However, the low wage rates, which have been referred to in this report as well as in the reports of previous years, in some lines of occupation, especially certain branches of the needle trades, have aroused public sentiment to a demand that drastic action be taken by industrial states on minimum wage legislation. As a result, the legislature at the session of 1933 passed an amendment to the minimum wage law, commonly known as the Conroy bill, being Chapter 220 of the Acts of 1933. This bill makes provision for a more effective enforcement of the minimum wage decrees through requiring the tagging of articles by the manufacturer producing the same and posting notice of sale by the dealer selling at retail, specifying that the articles so manufactured or sold are "manufactured, in whole or in part, by the labor of women and minors in violation of a decree of the Commission." The right of the Commission to proceed under this provision is subject to some limitations and thus far the Commission has taken no action thereunder. During the year 1933 a minimum wage law, based on the "model" bill of the National Consumers' League, was passed in some of the eastern states; to wit, New Hampshire, Connecticut, New York, New Jersey and Ohio. This bill imposes a criminal penalty for failure to abide by minimum wage decrees. It is to be borne in mind that the codes under the N. R. A. are at present established for a limited period only and with the desire of the great majority of employers and the public, as well as labor, for continued improvement in wage rates, it seems important that changes should be made in the Massachusetts law to encourage and assure the establishment of better wage rates. This matter, the Commission understands, is being given consideration by the Commission on Interstate Compacts, authorized at the last legislative session. The Commission, therefore, has not attempted to submit any specific recommendations for legislation, but is in accord with the enactment of legislation which will not only correct but prevent the continuance of uneconomic and anti-social wage conditions in industry and employment. It must be borne in mind, however, that in enacting such legislation provision should be made for recognition of the existing minimum wage decrees, a problem which did not have to be faced in the states heretofore referred to, which previous thereto had no minimum wage law. This could be met by special provisions without interfering in any way with the basic principle of uniformity, which is desirable in the enactment of legislation. It is also a matter worthy of consideration, if authority should not be given which will allow of decrees being modified or changed during the life of the N. R. A. and the codes adopted thereunder without the time-consuming and expensive process of summoning wage boards, so that with the

provisions of the codes, where economic conditions appear to warrant such a step, the decrees might be brought nearer into accord, thereby during the life of the N. R. A. avoiding some of the conflict and confusion which have been previously referred to in this report. A copy of Chapter 220 accompanies this report.

CHAPTER 220, ACTS OF 1933

AN ACT TO PROVIDE FOR THE MORE EFFECTIVE ENFORCEMENT OF DECREES OF THE MINIMUM WAGE COMMISSION

Section 1. Chapter one hundred and fifty-one of the General Laws is hereby amended by inserting after section eleven the following four new sections: — Section 11-A. If the commission shall at any time find, after investigation, that an employer engaged in manufacturing continues to violate any such decree, after his name has been published under section eleven, it may order such employer to cause to be affixed to every article thereafter manufactured in the course of such violation or to its container, or both, a tag, stamp, label or other device in such form, color and type as the commission may prescribe, stating the fact that such article is manufactured in whole or in part by the labor of women and minors in violation of a decree of the commission. Within ten days after the issuance of such an order to any employer he may file with the commission his objections thereto in writing. The commission shall, within ten days after such filing, suspend, amend, revoke or reaffirm such order. Refusal or failure to comply with an order of the commission issued under this section and in full force and effect shall be punished by imprisonment for not more than thirty days or by a fine of not more than five hundred dollars, or both.

Section 11–B. The commission may insert in any order issued under section eleven A, a provision that a dealer selling at retail within the Commonwealth any article to which, or to the container of which, is attached a tag, stamp, label or other device in pursuance of such an order shall keep conspicuously posted on his premises in such place, form, type and manner as the commission may prescribe, a notice that articles are for sale on said premises manufactured in whole or in part by the labor of women or minors in violation of a decree of the commission. A dealer failing to comply with such a provision shall be subject to the penalties prescribed in section eleven A.

Section 11–C. Whoever knowingly and willingly defaces, removes or destroys a tag, stamp, label or other device attached to an article or its container in pursuance of an order of the commission issued under section eleven A, or a notice posted as required in section eleven B, shall be subject to the penalties prescribed in section eleven A. The department of labor and industries shall enforce this and the two preceding sections.

Section 11–D. The commission may on its own initiative or at the request of an employer rescind any order issued under section eleven A, if after an investigation it determines such employer is complying with its decree.

Section 2. No order shall be issued by the minimum wage commission under section eleven A of chapter one hundred and fifty-one of the General Laws, inserted by section one of this act, affecting any employer in respect to wages paid by him in any occupation for which it has established a minimum wage by decree rendered prior to the effective date of this act, unless and until, in a proceeding conducted as provided in section five of said chapter one hundred and fifty-one, it shall have reinvestigated said wage and affirmed, modified or rescinded the same. (*Approved May 26, 1933.*)

Table 1. — Advertisement of Non-compliances under Minimum Wage Decrees, 1933

RETAIL STORE INDUSTRY

Date of advertisement	June 27, 1933
Number of establishments at most recent inspection	2,417
Number of records in most recent inspection	24,359
Cases of non-compliances:—	
Firms	362
Cases	5,935
Per cent of non-compliances:—	
Firms	15.0
Cases	24.4

Table 2. — Disposition of Cases of Non-compliance Pending from Previous Years

(C — Cases; E — Establishments)

Situation and Disposition of Cases	Boot and Shoe Cut Stock and Findings		Bread and Bakery Products		Brush		Candy		Canning, Preserving and Minor Lines of Confectionery		Corset		Druggists' Compounds and Proprietary Medicines		Electrical Equipment and Supplies		Knit Goods		Jewelry and Related Lines		Laundry		Men's Clothing and Raincoat	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Cases pending from previous years	5	3	14	3	4	2	214	4	13	2	32	2	3	1	133	2	239	4	673	9	529	42	80	6
ADJUSTMENTS																								
Wages raised	–	–	–	–	2	1	207	2	2	1	–	–	–	–	–	–	–	–	8	1	394	26	1	1
Left or discharged	–	–	2	1	1	1	2	1	2	1	–	–	–	–	–	–	–	–	51	3	76	20	8	1
Firm out of business	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	1	28	1
Technical non-compliance	–	–	2	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	28	1
Change of work, hours, or method of payment	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	1	1	–	–
Incorrectly recorded	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Covered by piece rate ruling	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	1	1	–	–
Not under decree	–	–	–	–	–	–	–	–	–	–	–	–	3	1	–	–	1	1	23	1	–	–	–	–
Special license type or similar case	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–
Adjustment promised or reported	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–
Earning minimum on piece work	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Firm moved from State	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ADVERTISED	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PENDING	5	3	8	1	–	–	5	1	9	1	32	2	–	–	133	2	237	3	590	8	49	11	15	3

*Includes 21 cases in 2 establishments omitted from last year's report under the men's clothing and retail store decrees.

Table 2. — Disposition of Cases of Non-compliance Pending from Previous Years — Concluded

C — Cases; E — Establishments

Situation and Disposition of Cases	Men's Furnishings		Millinery		Muslin Underwear		Office and Other Building Cleaners		Paper Box		Pocketbook and Leather Goods		Retail Store		Stationery Goods and Envelopes		Toys, Games and Sporting Goods		Women's Clothing		Total	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Cases pending from previous years	471	34	18	2	710	28	12	8	12	5	711	23	6,152	525	444	13	254	5	159	30	10,882*	753*
ADJUSTMENTS																						
Wages raised	18	6	–	–	30	6	1	1	6	3	52	6	224	46	70	7	–	–	10	4	1,025	111
Left or discharged	40	8	–	–	63	9	4	1	1	1	109	7	957	167	214	6	84	2	28	10	1,642	239
Firm out of business	–	–	–	–	–	–	–	–	–	–	3	1	84	23	–	–	–	–	48	6	170	33
Technical non-compliance	101	4	–	–	170	4	–	–	–	–	–	–	50	44	7	2	–	–	–	–	358	56
Change of work, hours, or method of payment	–	–	–	–	–	–	–	–	–	–	8	1	57	26	4	2	–	–	–	–	71	31
Incorrectly recorded	1	1	–	–	1	1	1	1	–	–	1	1	46	17	–	–	–	–	–	–	50	21
Covered by piece rate ruling.	2	1	–	–	18	3	–	–	–	–	1	1	–	–	–	–	–	–	–	–	23	7
Not under decree	4	1	–	–	–	–	1	1	–	–	–	–	2	1	2	1	22	1	–	–	58	8
Special license type or similar case	3	1	–	–	–	–	–	–	–	–	–	–	2	1	1	1	–	–	–	–	8	5
Adjustment promised or reported	–	–	–	–	–	–	1	1	1	1	16	2	87	29	4	1	–	–	1	1	112	37
Earning minimum on piece work	18	5	–	–	12	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	30	8
Firm moved from State	14	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14	1
ADVERTISED	–	–	–	–	–	–	–	–	–	–	–	–	4,163	317	–	–	–	–	–	–	4,163	317
PENDING	270	18	18	2	416	19	4	2	4	1	521	15	480	39	142	6	148	4	72	13	3,158	154

*Includes 21 cases in 2 establishments omitted from last year's report under the men's clothing and retail store decrees.

Table 3. — Disposition of New Cases in Firms where Cases were Pending from Previous Years

(C — Cases; E — Establishments)

Situation and Disposition of Cases	Bread and Bakery		Electrical Equipment and Supplies		Jewelry and Related Lines		Knit Goods		Laundry		Men's Clothing and Raincoat		Men's Furnishings		Muslin Underwear	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Number of Cases of Non-Compliance	3	1	41	1	102	4	61	1	257	27	7	2	279	9	76	9
ADJUSTMENT																
Wages raised	–	–	–	–	–	–	–	–	158	17	–	–	–	–	–	–
Left or discharged	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
Adjustment promised or reported	–	–	–	–	–	–	–	–	6	1	–	–	–	–	–	–
Hours reduced	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Covered by piece rate ruling	–	–	–	–	–	–	–	–	–	–	–	–	2	1	5	2
Technical non-compliance	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ADVERTISED	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PENDING	3	1	41	1	102	4	61	1	93	9	7	2	277	8	69	6

Situation and Disposition of Cases	Paper Box		Pocketbook and Leather Goods		Toys, Games and Sporting Goods		Retail Stores		Stationery Goods and Envelopes		Women's Clothing		Total	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Number of cases of non-compliance	17	2	108	7	2	1	1,930	171	254	6	70	4	3,207	245
ADJUSTMENT														
Wages raised	–	–	5	1	–	–	32	5	–	–	–	–	195	23
Left or discharged	–	–	1	1	–	–	9	4	–	–	–	–	12	7
Adjustment promised or reported	16	1	15	2	–	–	16	2	–	–	–	–	53	6
Hours reduced	–	–	–	–	–	–	5	1	–	–	–	–	5	1
Covered by piece rate ruling	–	–	3	1	–	–	–	–	–	–	–	–	10	4
Technical non-compliance	–	–	–	–	–	–	5	2	–	–	–	–	5	2
ADVERTISED	–	–	–	–	–	–	1,772	148	–	–	–	–	1,772	148
PENDING	1	1	84	3	2	1	91	12	254	6	70	4	1,155	59

Table 4 — Summary of Adjustments in Connection with Inspection in 1933 under Minimum Wage Decrees

(C — Cases; E — Establishments)

Situation and Disposition of Cases	Boot and Shoe Cut Stock and Findings [1]		Bread and Bakery Products [1]		Brush [1]		Candy [1]		Canning, Preserving and Minor Lines of Confectionery [1]		Druggists' Compounds and Proprietary Medicines [1]		Electrical Equipment and Supplies [1]		Jewelry and Related Lines [2]		Knit Goods [1]		Laundry [1]		Men's Clothing and Raincoat [3]	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Records for tabulation and establishments represented	1,141	91	1,047	48	363	13	4,255	75	1,638	85	693	43	3,293	61	2,404	56	1,820	28	5,547	380	1,380	31
Cases of non-compliance	505	65	124	14	84	4	230	13	244	38	136	11	1,264	25	47	12	107	11	548	82	342	22
ADJUSTMENTS																						
Wages raised	3	2	5	2	1	1	123	3	5	4	2	2	20	3	–	–	1	1	317	41	9	2
Change of work, hours, method of payment	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	19	2	2	2	–	–
Adjustment promised or reported	21	3	6	3	–	–	88	5	40	7	11	4	–	–	–	–	–	–	84	15	–	–
Covered by piece rate ruling	6	2	–	–	–	–	3	1	1	1	6	1	39	3	–	–	1	1	–	–	13	1
Special license type or similar case	4	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	–	–	–	–
Incorrectly recorded	–	–	3	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Left or laid off	14	5	4	3	–	–	–	–	–	–	11	4	19	1	–	–	7	3	34	14	8	1
Firm out of business	–	–	–	–	–	–	–	–	–	–	–	–	382	1	–	–	–	–	8	2	6	1
Not under decree	–	–	–	–	–	–	–	–	36	11	1	1	21	1	–	–	–	–	–	–	–	–
Technical non-compliance	9	1	10	2	8	1	7	1	–	–	–	–	–	–	–	–	2	1	52	8	–	–
ADVERTISED																	–	–	–	–	–	–
PENDING	448	56	95	6	75	2	9	4	162	16	105	4	783	17	47	12	75	9	51	14	306	20

[1] Inspection initiated and completed during the year.
[2] Inspection in process at the close of the year.
[3] Completion of inspection initiated previous year also includes partial inspection under the men's clothing, men's furnishing, muslin underwear, retail store and stationery goods and envelopes decrees.

Table 4.—Summary of Adjustments in Connection with Inspection in 1933 under the Minimum Wage Decrees—Concluded

(C — Cases; E — Establishments)

Situation and Disposition of Cases	Men's Furnishings [3]		Millinery [1]		Muslin Underwear [3]		Office and Other Building Cleaners [3]		Paper Box [1]		Pocketbook and Leather Goods [3]		Retail Store [3]		Stationery Goods and Envelopes [3]		Toys, Games and Sporting Goods [1]		Women's Clothing [3]		Total	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Records for tabulation and establishments represented	1,130	14	964	39	1,501	23	2,190	363	2,861	132	316	19	1,220	160	1,348	30	813	27	224	15	36,148	1,733
Cases of non-compliance	718	16	13	4	934	21	172	25	412	59	83	10	1,219	87	449	22	235	13	66	9	7,932	563
ADJUSTMENTS																						
Wages raised	–	–	–	–	–	–	14	5	3	3	3	1	96	11	37	7	–	–	14	2	653	90
Change of work, hours, method of payment	–	–	–	–	–	–	4	2	–	–	–	–	13	3	2	1	–	–	–	–	41	11
Adjustment promised or reported	–	–	7	1	–	–	75	13	50	11	3	1	24	10	15	3	21	2	–	–	445	78
Covered by piece rate ruling	4	2	–	–	–	–	–	–	5	4	–	–	–	–	–	–	–	–	–	–	78	16
Special license type or similar case	–	–	–	–	–	–	–	–	3	1	1	1	–	–	–	–	–	–	–	–	10	6
Incorrectly recorded	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	1
Left or laid off	49	3	–	–	54	3	–	–	25	4	–	–	20	5	4	2	8	1	11	3	268	52
Firm out of business	–	–	–	–	–	–	1	1	–	–	–	–	6	2	–	–	–	–	–	–	403	7
Not under decree	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	58	13
Technical non-compliance	–	–	1	1	–	–	67	1	52	3	–	–	87	8	38	2	–	–	5	1	338	30
ADVERTISED	–	–	–	–	–	–	–	–	–	–	–	–	934	45	–	–	–	–	–	–	934	45
PENDING	665	15	5	2	880	20	11	3	274	38	76	8	39	7	353	11	206	11	36	6	4,701	281

[1] Inspection initiated and completed during the year.
[2] Inspection in process at the close of the year.
[3] Completion of inspection initiated previous year also includes partial inspection under the men's clothing, men's furnishing, muslin underwear, retail store and stationery goods and envelopes decrees.

REPORT OF THE DIVISION OF STANDARDS

JOHN P. McBRIDE, *Director of Standards*

The duties of the Director of Standards in brief are to enforce all laws relating to the use of weighing and measuring devices and giving false or insufficient weight or measure; to authorize manufacturers to seal certain devices and to assist manufacturers in standardizing their products, as well as to enforce the law relating to the licensing of hawkers and peddlers and transient vendors. This latter activity produces the chief source of income for this Division. The revenue from this source has showed a marked decrease during the past year. The principal reason therefor must be attributed to business conditions as enforcement activities were constant throughout the year, although it will be seen in a subsequent part of this report that a distinct trend has been established toward county licenses, this form of license being restricted to the goods manufactured by the licensee or his employer, it is obtained at a lower fee than other classes of license.

NEW LEGISLATION

Chapter 94, enacted during the 1933 legislative session, gives authority to this Division and local sealers of weights and measures to intercept and direct the re-weighing of material for road construction. General Laws, chapter 94, section 245, was further amended by this same chapter to establish clearly the authority of the Director and Inspectors of Standards in the matter of intercepting in transit, for the purpose of re-weighing, coke, charcoal and coal.

Chapter 120, Acts of 1933, legalizing the manufacture and sale of wines and malt beverages imposed some additional work on this Division as this commodity, under our statute defining food, is subject to the law governing the marking of quantity of contents of food in package form. Contact was promptly made with the Massachusetts manufacturers apprising them of the law and immediate compliance therewith was had. Co-operative action along these lines was obtained with the other New England states and inter-state shippers in violation were referred to the United States Food and Drug Administration Division. Some confusion was present when the wine and malt beverages business was being organized, in the matter of proper marking. In some instances, barrels and fractional parts thereof not conforming to the standards provided in our statute were found in this Commonwealth. Adjustment on the proper gallonage basis was made between the parties affected.

NEW EQUIPMENT

The Division has now acquired a portable 100-gallon test tank completely equipped with pumping unit, motor, meter and air separator, mounted on an automobile trailer. This trailer is so adapted as to be attachable to any of the Division automobiles; thus making it possible to readily transport the device to any section of the Commonwealth.

CLINICAL THERMOMETERS

Manufacturers of clinical thermometers who are authorized to affix a MASS SEAL mark upon their products are required to report to this office all sales and shipments of clinical thermometers so sealed by them. These reports indicate that during the past year such manufacturers sold and shipped 197,319 clinical thermometers of which number 104,331 were sold in Massachusetts and 92,988 in other states and in the Dominion of Canada. These figures show a material increase as compared with those of the preceding year and indicate that physicians and nurses recognize that the MASS SEAL imprint may be regarded as a guarantee of a superior degree of precision. Four manufacturers, who had been previously authorized to use seal-marks upon certain of their products, submitted applications to include several new types of thermometers within this authority. Following satisfactory inspection and tests, these manufacturers were authorized to affix their MASS SEAL mark upon 38 new or improved types of thermometers.

Laboratory Work

Calibration of Standards for Cities and Towns.

Article	Tested	Adjusted	Sealed	Condemned
Avoirdupois weights	75	20	66	9
Metric weights	2	—	2	—
Apothecary weights	2	—	2	—
Liquid measures	1	—	1	—
Totals	80	20	71	9

Clinical Thermometers

Description	Tested	Passed	Rejected	Per Cent Passed
Massachusetts seal	1,915	1,842	73	96.18
Unsealed	963	824	139	85.56

Fees amounting to $167.71 were received for the testing and certification of clinical thermometers to be offered for sale in this Commonwealth by manufacturers who had not been authorized to affix a manufacturer's seal upon them.

Cans, Cartons, and Other Containers, Measures and Weighing and Measuring Devices Submitted in Connection with Manufacturers' Applications for Approval or for Authority to Affix the Manufacturers' Seal Thereon

	Tested	Accurate	Inaccurate
Cartons for use in the sale of ice cream and other specified commodities	136	62	74
Wholesale milk cans	24	2	22
Milk jars (glass)	32	28	4
Milk jars (paper pulp)	4	—	4
Lubricating-oil bottles	3	3	—
Liquid measures	27	17	10
Coin-operated scales	5	3	2
Physicians' scales	2	1	1
Computing scales	2	2	—
Computing scale charts and indicators	6	5	1
Automatic even balance scale	1	1	—
Gum-vending machine	1	—	1
Wire-measuring machine	1	—	1
Totals	244	124	120

Miscellaneous Tests

	Tested	Accurate	Inaccurate
Automatic test-measures for gasoline pumps	13	11	2
Apothecary weights	20	—	20
Avoirdupois weights	34	23	11
Metric weights	17	11	6
Troy weights	8	6	2
Meter clock-works	1	1	—
Meter registers	3	3	—
Berry baskets	7	1	6
Steel tapes	3	3	—
Incubator thermometers	4	3	1
Prescription scale	1	—	1
Postal scale	1	—	1
Oil-dispensing devices	2	1	1
Totals	114	63	51

Other laboratory work included measurement of 23,765 yards of sewing thread and 36 yards of binding tape; screening four samples of anthracite coal to determine size; testing capacities of 12 bottles, 11 jars and 4 cartons to assist packers of various food products in determining proper labelling of quantity of contents; testing four liquid measures to assist a can manufacturer in standardizing his products; measuring one bottle of syrup and one bottle and thirteen cans of oil, and weighing one box of tea-balls to determine quantity of contents; testing person-weighing scale for State Surgeon's office; testing one egg-grading scale and one Centigrade thermometer for the Division of Markets; testing six linear measures, 25 shell fish rings, 26 brass lobster gauges and 16 game warden's measures for the Division of Fisheries and Game; two refrigerator thermometers tested; and precise weight of two clock-weights and one bottle of mercury determined.

Field Work of Inspectors

As a part of the general supervision of the work of local sealers during the past year Inspectors of Standards visited 68 cities and towns with the State test truck and tested 259 large-capacity commercial and industrial scales. These tests revealed errors which could not be discovered by use of the average sealers' working equipment and showed the necessity of repairs or replacement in many instances.

Some of the causes of error noted in the incorrect scales were as follows:— poor foundations, broken or cracked pivots, rotten timbers, defective steel (due to wear), improper installations, dirty pivots and bearings, lack of proper adjustments. This co-operative work received much favorable comment from the sealers, scale users and scale manufacturers and will, undoubtedly, result in improvement in the conditions surrounding the use of large capacity scales.

The following compilation shows some other phases of the inspectors' work:—

Number of Inspections: — Stores, 1,128; gasoline pumps, 262; peddlers, 797; transient vendors, 383; net weight markings, 97; coal weight certificates, 53; bread-weight markings, 39; ice scales and price lists, 6; total, 2,765.

Weighing and Measuring Devices. Sealed, 7,459; unsealed, 2,006; total inspected, 9,465. Accurate, 1,678; inaccurate, 198; total tested, 1,876.

Clinical Thermometers. Sealed, 325; total inspected, 325.

	Reweighings			
Commodity	*Number*	*Correct*	*Under*	*Over*
Coal (loads)	52	11	18	23
Coal (bags)	9	7	2	—
Turkeys	6	5	1	—
Packages of food, etc.	6,530	3,531	970	2,029
Totals	6,597	3,554	991	2,052

	State Institutions			
Article	*Tested*	*Adjusted*	*Sealed*	*Condemned*
Scales	451	97	424	27
Weights	1,271	63	1,255	16
Height measures	2	—	2	—
Liquid measures	9	—	9	—
Gasoline pumps	20	3	18	2
Oil pumps	1	—	1	—
Totals	1,754	163	1,709	45

The inspector's field work also included inspection and tests, under varying working conditions, of 43 gasoline, fuel oil and grease measuring devices submitted by manufacturers for approval of type under section 29, chapter 98, General Laws.

There were 51 applicants for certificates of fitness for appointment as measurers of leather examined, 10 of whom failed to qualify while certificates were issued to 41 who passed a satisfactory examination.

Complaints Investigated

There were 141 complaints referred to inspectors for investigation. These complaints involved violations of the hawkers' and pedlers' and transient vendors' license laws, giving insufficient weight or measure, and sale of coal containing an unreasonable amount of foreign substances. Three prosecutions followed investigation of these coal complaints, resulting in the payment of $100 fine by a wholesaler, while the retailer, to whom some of this coal was delivered, pleaded nolo and his case was filed. The other case was based upon possession of inferior coal in paper bags, the defendant pleading nolo and the case being filed by the court.

Prosecutions

As shown by the following summary, there were 33 complaints prosecuted in the courts during the year. Conviction resulted in 27 cases, 6 pleaded nolo, and one defaulted. The final disposition of many of these cases was, however, rather disheartening to the prosecuting inspectors as 16 cases were filed in the lower courts and, in four appealed cases, the fines imposed in the lower courts were substantially reduced upon pleas of guilty in the Superior Courts to avoid the time and expense involved in jury trials.

Court Cases

Nature of Offence	Number of complaints	Convicted	Defaulted	Pleaded nolo	Filed	Fines imposed	Appealed
Insufficient weight in sale of matzos [1]	2	–	–	2	2	–	–
Insufficient measure of flavoring extracts	1	1	–	–	–	$10	–
Possession of false scale	1	1	–	–	–	10	–
Possession of unsealed scale	1	1	–	–	–	10	–
Delivery of coal containing unreasonable amount of foreign substances [2]	2	1	–	1	–	100	–
Possession of paper bags containing coal of inferior quality	1	–	–	1	1	–	–
Conducting transient business without license	9	7	1	1	1	155	3
Peddling without license: —							
Bakery products	3	3	–	–	1	10	–
Fruit and vegetables	1	1	–	–	–	20	–
Ice cream	1	1	–	–	1	–	–
Pennants, etc.	2	2	–	–	2	–	–
Soap, etc.	5	5	–	–	5	–	–
Furnishing goods to unlicensed minor	1	1	–	–	–	25	1
Employing minor to peddle without license	2	2	–	–	2	–	–
Permitting minor to peddle without license	1	1	–	–	1	–	–
Totals	33	27	1	5	16	$340 [3]	4

[1] As a result of these prosecutions, manufacturers of matzos, sold chiefly during the Jewish holidays, have jointly agreed to ship only standard weight packages to this Commonwealth in future.

[2] Practically all of the cargo of coal involved in this case was shipped out of the Commonwealth following the trial.

[3] Disposition of appealed cases in the Superior Courts reduced total fines to $190.

Office Work

Weighing and measuring devices approved as to design and construction under section 29, chapter 98, General Laws, included 2 automatic counter scales, 3 computing scales, 1 physicians' scale, 1 spring scale, 43 grease-measuring devices, 3 portable gasoline pumps, 1 gasoline meter, 1 bulk storage meter system, 8 truck-tank meter systems, 3 pre-determined truck-tank meter systems, 67 retail gasoline-meter systems, 1 computing gasoline meter system, and 9 liquid measures.

Under section 283, chapter 94, General Laws, 3 coin-operated person-weighing scales were approved by the Director.

Under section 13, chapter 98, General Laws, three manufacturers were authorized to affix the manufacturers' seal-mark upon 38 additional types of clinical thermometers.

Under section 15, chapter 98, General Laws, two manufacturers were authorized to seal certain milk jars of their manufacture.

Under section 18, chapter 98, General Laws, two manufacturers were authorized to seal certain wholesale milk cans of their manufacture.

Under section 22, chapter 98, General Laws, paper or fibre cartons submitted by three manufacturers were approved for use as measures in the sale of certain specified commodities.

Under section 14A, chapter 98, General Laws, one manufacturer of lubricating-oil bottles was authorized to seal such bottles.

Under section 3, chapter 101, General Laws, $500 in cash was deposited and surety bonds aggregating $149,000 were filed with the director by applicants for transient vendors' licenses, to be subject to legal claims incurred in connection with the transient business conducted under such licenses.

As shown by the detailed financial statement included elsewhere in this report, a total of $105,943.06 was received from all sources, including fees for hawkers' and pedlers' and transient vendors' licenses, transfer fees and fees for testing clinical thermometers.

Licenses

Transient Vendors

There were 299 transient vendors' licenses issued and the fees received therefrom amounted to $7,475. In 1932, there were 472 transient vendors' licenses issued and $11,800 received in fees. Although the general business conditions contributed to this condition, it is probable that this decrease was also to some extent due to an opinion rendered by the Attorney-General on June 30, 1932, to the effect that the words "each year," in the definition of "transient business" in section 1, chapter 101, General Laws, does not mean each *calendar* year. Previous to this opinion, enforcing officers relied upon the definition of the word "year" as appearing in section 7, chapter 4, General Laws: — "Nineteenth, —— 'year,' a calendar year," and any business commenced after April first in any year was considered as coming within the statutory definition during the remainder of the first year, this period being less than the nine months during which the place should be kept open to be exempt from license.

Hawkers and Pedlers

There were 4,330 hawkers' and pedlers' licenses and 976 transfers of licenses for which fees were received, as compared with 4,841 issued and 1,631 transferred in the preceding year. Special licenses were issued without fee to 629 disabled veterans of the World War, 35 less than were issued in 1932.

Since the enactment of chapter 349, Acts of 1929, there has been a marked annual decrease in the number of applications for the various forms of hawkers' and pedlers' licenses, with the sole exception of county licenses which increased from a total of 497, in the year before that enactment, to the number of 1,867 in the past year. By this legislation the statute was amended so as to provide for issuance of county licenses for the sale of goods manufactured by the licensee or by his employer, whereas previously such licenses were granted only to the manufacturer of the articles to be pedled thereunder. As a result, the receipts for county licenses show an increase of $14,454 in 1933, as compared with 1928, while in the same period receipts for state licenses show a decrease of $19,950; for city licenses, a decrease of $8,003; and for town licenses, a decrease of $3,613. As the entire expense of enforcement falls upon the Commonwealth and the various cities and towns in which these pedlers may operate, it is evident that the amended law benefits the counties, while materially decreasing the income received by the Commonwealth and municipalities from license fees. The lack of purchasing power prevailing amongst those upon whom pedlers were wont to depend for patronage also contributed toward a diminution of the number of pedlers, as shown by the failure of many licensees to renew their licenses after the expiration date.

Educational and Co-operative Activities

While for reasons of economy the publication of bulletins and other printed information was suspended and the annual session of the National Conference was again omitted, co-operation with officials of other states and of the National Bureau of Standards was continued through exchange of communications and personal visits of some of these officials. Many queries from teachers and students of home economics were received and answered. Following repeal of the Prohibition Amendment, conferences were held with representatives of the brewers, distillers and bottlers relative to compliance with legal requirements as to marking of quantity of contents on all containers of wines and alcoholic beverages.

The Director attended conferences of the State Fire Marshal and representatives of manufacturers of tanks to be used in the storage and sale of gasoline and other volatile and inflammable liquids. He addressed the Lynn Chamber of Commerce on May 8, the Essex County Associated Boards of Trade on June 14, and a class of Boston University students on August 29, his subject in each case being the activities of this division in co-operation with local officials in the enforcement of laws relating to hawkers and peddlers and to transient vendors and those relative to the sale of food, fuel and other commodities ordinarily sold by weight or measure.

With all inspectors he attended the annual convention of the Massachusetts Association Sealers of Weights and Measures, at which the Commissioner of Labor and Industries was also a guest speaker. The director also attended an informal regional meeting of local sealers held at Salem, November 20, for discussion of matters of interest. Many instances of co-operation with other state departments are detailed under the heading of "Laboratory Work."

Local Sealers of Weights and Measures

Following is a summary of work performed by sealers of weights and measures in cities and towns as compiled from annual reports required by section 37, chapter 98, General Laws, to be filed with the Director between the first and tenth of December in each year. The sealers in the towns of Hancock, Tolland, and Tyngsborough failed to comply with the provisions of the aforementioned statute, and therefore this summary does not include any work performed in these towns.

Summary of Local Sealers' Work

Article	Adjusted	Sealed	Non-sealed	Condemned
Scales				
Platform (over 5,000 lbs.)	459	2,491	76	145
Platform (100 to 5,000 lbs.)	4,285	20,857	803	590
Counter (100 lbs. or over)	196	1,464	29	67
Counter (under 100 lbs.)	1,790	15,565	339	269
Beam (100 lbs. or over)	170	1,587	76	63
Beam (under 100 lbs.)	33	630	7	16
Spring (100 lbs. or over)	237	5,161	73	360
Spring (under 100 lbs.)	3,810	27,613	239	1,164
Computing (100 lbs. or over)	198	650	4	37
Computing (under 100 lbs.)	4,273	22,558	213	1,070
Person-weigher (slot)	137	4,133	286	35
Prescription	167	1,840	11	41
Jewellers'	4	114	6	3
Totals	15,759	104,663	2,162	3,860
Weights				
Avoirdupois	6,003	124,893	1,009	492
Apothecary	259	20,482	—	291
Metric	107	8,041	254	47
Troy	80	1,921	60	5
Totals	6,449	155,337	1,323	835
Capacity Measures				
Vehicle tanks (compartments)	1	2,202	—	25
Liquid measures	228	37,270	231	551
Ice-cream cans	11	5,334	—	43
Glass Graduates	—	575	—	16
Oil bottles	—	17,724	35	117
Milk jars	—	277	—	19
Dry measures	—	883	—	24
Fuel baskets	—	1,350	—	30
Totals	240	65,615	266	825

Article	Adjusted	Sealed	Non-sealed	Condemned
Automatic Measuring Devices				
Gasoline Pumps	2,623	14,594	1,011	1,007
Gasoline and Oil Meter Systems	3,821	11,906	58	866
Kerosene Pumps	222	3,173	581	100
Lubricating-oil Pumps	2,910	11,842	7,638	217
Grease Measuring Devices	324	988	11	91
Molasses Pumps	47	551	223	1
Quantity stops (on measuring pumps)	6,154	85,763	65	22
Leather measuring machines	—	273	—	15
Totals	16,111	129,090	9,587	2,319
Linear Measures				
Yard sticks	5	6,581	—	82
Tapes	—	94	—	7
Taximeters	470	2,274	—	23
Cloth-measuring devices	—	789	—	15
Totals	475	9,738	—	127
Grand Totals	39,034	464,443	13,338	7,966

Sealing fees collected	$54,266.88
Adjusting charges	5,728.16
Total collected	$59,995.04

Reweighings and Remeasurements

Commodity	Number of Reweighings, etc.	Correct	Under	Over
Beans	2,085	15,46	297	242
Bread	39,742	25,603	3,841	10,298
Butter	21,158	18,179	1,377	1,602
Charcoal (in paper bags)	698	657	14	27
Coal (in paper bags)	9,777	6,166	1,139	2,472
Coal (in transit)	2,475	478	274	1,723
Coke (in paper bags)	579	548	8	23
Confectionery	6,472	5,594	247	631
Dry Commodities	28,809	25,047	1,123	2,639
Dry Goods	96	78	5	13
Flour	8,622	6,053	971	1,598
Fruit and Vegetables	14,806	8,970	2,916	2,920
Grain and Feed	1,055	870	59	126
Hay	94	68	20	6
Ice	935	553	49	333
Kindling Wood (in paper bags)	3,057	3,036	11	10
Lard	1,112	1,037	25	50
Liquid Commodities	4,318	3,960	275	83
Meats and Provisions	13,335	11,648	708	979
Potatoes	5,227	3,264	811	1,152
Wood (cord)	150	92	39	19
Wood (kindling)	268	253	2	13
Miscellaneous	1,124	882	147	95
Totals	165,994	124,582	14,358	27,054

The annual reports also indicate that reweighings and remeasurements were made by local sealers for various municipal departments as follows: — 2,539½ cords of wood, 4,382 loads of coal, 18 tank-loads of fuel oil, 7 tank-loads of gasoline, 183 loads and 68 bales of hay, 18 loads and 321 bags of grain, 11 loads of broken stone, 65 loads of gravel, 1 load cold patch for highway, 1 load of loam, 2 garbage trucks and 188 miscellaneous reweighings and remeasurements.

Local sealers inspected 8,096 clinical thermometers, 2,958 coal weighers' certificates, 1,730 ice scales, 475 junk scales, 2,655 pedlers' scales, 633 transient vendors, 4,905 pedlers' licenses, 37,747 markings of food packages, 20,488 weight statements on bread, 13,140 ice cream cans, 3,593 wholesale milk cans, 13,622 milk jars, 17,266 lubricating-oil bottles, 1,632 paper or fibre cartons, 1,942 markings on paper bags used in the sale of coal, coke, charcoal and kindling wood, and 5,144 other miscellaneous items; and tested 1,885 berry baskets, 2,062 cartons, 647 climax baskets, 5,326 milk jars, 2,161 lubricating-oil bottles, 1,200 standard farm-produce boxes, 167 United States standard barrels, 2,993 retests of gasoline measuring devices after sealing, 32 beer barrels, and made 1,393 other miscellaneous tests.

Prosecutions by Local Sealers

Nature of Offence	Number of complaints	Convicted	Discharged	Pleaded nolo	Filed	Defaulted	Fines imposed	Appealed
Giving insufficient weight of: —								
Apples	1	1	–	–	–	–	$10	–
Bread	3	3	–	–	1	–	35	–
Butter	2	2	–	–	1	–	5	–
Cake meal	1	1	–	–	–	–	10	–
Chicken	4	4	–	–	1	–	60	–
Cranberries	1	1	–	–	–	–	25	–
Fish	1	1	–	–	–	–	25	–
Matzos	3	1	–	2	–	–	60	–
Meat	5	3	1	1	–	–	25	–
Potatoes	2	1	–	1	–	–	65	1[1]
Turkey	3	3	–	–	–	–	20	–
Coal	6	6	–	–	–	–	255	–
Crushed stone	1	–	1	–	–	–	–	–
Giving insufficient measure of: —								
Beer	2	2	–	–	2	–	–	–
Cord wood	3	2	–	1	–	–	40[2]	–
Firewood	1	–	–	–	1[3]	–	–	–
Oil	1	1	–	–	1	–	–	–
Attempting to give insufficient measure of fuel oil	3	3	–	–	–	–	25	–
False weight in determining transportation charge	1	1	–	–	–	–	50	–
Possession of false measure	5	5	–	–	2	–	15	1
Possession of false scales	4	4	–	–	2	–	15	–
Possession of unsealed scales	3	3	–	–	2	–	10	–
Possession of condemned measure	1	1	–	–	–	–	25	–
Larceny in sale of turkey (overcharge)	1	1	–	–	–	–	20	–
Fraud in delivery of coal	1	–	1	–	–	–	–	–
Fraud in delivery of coke	1	1	–	–	–	–	10	–
Failure to weigh coal	3	2	1	–	–	2	–	–
Failure to deliver weight certificate with coal	1	1	–	–	–	1	–	–
Neglect to provide scale on ice vehicle	1	1	–	–	1	–	–	–
Interfering with sealer	2	2	–	–	–	–	25	–
Sale of bread without weight marking	2	2	–	–	–	–	20	–
Peddling without license: —								
Cushions	1	1	–	–	1	–	–	–
Frankfurts	1	1	–	–	–	–	10	–
Fruits and vegetables	5	5	–	–	1	–	40	–
Handkerchiefs	1	1	–	–	–	–	10	–
Ice cream	6	6	–	–	1	–	35	–
Meats and vegetables	1	1	–	–	–	–	25	–
Neckties	1	1	–	–	–	–	15	–
Razor blades	1	1	–	–	–	–	2	–
Shoe polish	1	1	–	–	–	–	50	–
Soap	1	1	–	–	–	–	10	–
Stockings	1	1	–	–	1	–	–	–
Sweaters	1	1	–	–	–	–	20	–
Miscellaneous	17	14	3	–	5	–	115	–
Peddling under expired license	1	1	–	–	1	–	–	–
Possession of another's license	1	1	–	–	1	–	–	–
Furnishing ice cream for unlicensed minors to peddle[4]	10	8	–	1	1	1	60	–
Employing minor to peddle without license	1	1	–	–	–	–	10	–
Permitting minor to peddle without license	2	2	–	–	1	–	20	–
Failure to display license plates on vehicle	1	1	–	–	–	–	15	–
Conducting transient business without license	4	4	–	–	2	–	35	–
Totals	127	112	7	6	32	1	$1,322	2

[1] In Superior Court pleaded nolo and lower court fine of $50 was reduced to $5 and costs.
[2] One fined $5 and ordered to make restitution.
[3] Filed without finding upon making restitution.
[4] One sentenced to 3 months in House of Correction. Two others fined and given suspended sentence of 10 days.

Financial Statement of the Division of Standards

Receipts

1,075 State (hawkers' and pedlers') license fees		$53,750.00
1,867 County (hawkers' and pedlers') license fees		16,662.00
582 City (hawkers' and pedlers') license fees		15,116.00
808 Town (hawkers' and pedlers') license fees		9,401.00
299 Transient Venders' license fees		7,475.00
976 Transfer fees		976.00
Total receipts from license fees		$103,380.00
Fees received for licenses not issued		116.00
Fees received for testing clinical thermometers		167.71
Accumulation of plates and badge money		2,028.51
Interest on deposits		47.84
Total receipts		$105,740.06
Court fines for violations of hawkers' and pedlers' laws		356.00
Accumulated deposits covering uncashed checks		203.00
Total		$106,299.06

Payments

To State Treasurer:		
1,075 State license fees	$53,750.00	
1,867 County license fees	1,867.00	
582 City license fees	582.00	
808 Town license fees	808.00	
299 Transient Vendors' license fees	7,475.00	
976 Transfer fees	976.00	
Fees received for licenses not issued	116.00	
Fees received for testing clinical thermometers	167.71	
Accumulation of plate and badge money	2,028.51	
Interest on deposits	47.84	
Accumulated deposits covering uncashed checks	203.00	
Total payments to State Treasurer		$68,021.06
To County Treasurers	$14,795.00	
To City Treasurers	14,534.00	
To Town Treasurers	8,593.00	
Total paid to county, city and town treasurers		37,922.00
Total payments		$105,943.06
Total paid direct to State Treasurer for Court fines		356.00
		$106,299.06

Summary

Appropriation, personal services	$29,385.00	
Expended	29,385.00	
Appropriation, general expenses	17,068.08	
Expenses	8,715.23	
Unexpended balance		$8,352.85
Total income to the Commonwealth from licenses, etc.		$67,818.06
Total expenditures		38,100.23
Excess of income over expenditures		$29,717.83

REPORT OF THE DIVISION OF THE NECESSARIES OF LIFE

Ralph W. Robart, *Director*

Introduction

Duties of the Division. — The duties of the Division, as prescribed in Chapter 410 of the Acts of 1930, as amended by Chapter 362, Acts of 1933, may be briefly summarized as follows:

a. Investigation of the circumstances affecting the prices of fuel, gasoline and refined petroleum products and other commodities which are necessaries of life.

b. Inquiry into all matters relating to the production, transportation, distribution and sale of said commodities, and into all facts and circumstances relating to the cost of production, wholesale and retail prices and the method pursued in the conduct of the business of any persons, firms or corporations engaged in the production, transportation, or sale of the said commodities, or of any business which relates to or affects the same.

c. Study and investigation of the circumstances affecting the charges for rent of property used for living quarters.

d. Whenever the governor shall determine that an emergency exists in respect to food or fuel, or both, he may, with the approval of the council, by a writing signed by him, designate the director of the Division to act as an emergency food or fuel administrator, or both.

Summary of Activities. — During the past year the Division has followed the same procedure in the performance of its duties as in former years, insofar as this could be done in conformity with national legislation and administrative regulations in the interest of recovery. These recovery measures have resulted in a demand by administrative authorities for basic information required in the determining of administrative procedure to be followed, and the effect which such measures might have on the conduct of business. Because of the multiplicity of questionnaires, the Division has endeavored to limit its inquiries to the lowest possible minimum, and to avoid duplication of such inquiries wherever possible. It is not the province of the Division to enforce a reduction of prices of consumers' goods regardless of the legitimate cost of business, and it has endeavored, in its analyses and investigations, to determine the actual costs of production, transportation, and distribution of commodities in its determination of fair prices, in order that it may not injure any firm or corporation by representing that its business was being conducted at excessive profit, when such was not the case. It has been the policy of the Division to impress upon those doing business in the Commonwealth the thought that the best and surest way to remain in business is to perform a service to the community on a fair and reasonable profit basis.

The Federal administration has definitely announced that consumers must be protected under the NRA and has established in the agricultural administration a consumers council, whose representatives now sit in conference at all code hearings of the NRA and AAA. This council has been of real importance in the protection of the interests of the consumer. When the NRA was established, Massachusetts was the only State in the Union having the facilities afforded by the Division on the Necessaries of Life. It is now the desire of the Consumers' Council to have a similar unit in every State of the country, and particularly in industrial States where there have been attempts to exploit consumers in the past.

The closing of the banks, however vital an economic measure at the time, inevitably resulted in the fact that the great majority of people found themselves with little ready cash to buy the things most necessary for their existence. The Division immediately ascertained how long the food supply then in the Commonwealth would last. The next problem was to see how food could be furnished to homes without cash, and to prevent the hoarding of food supplies by individual households which might be in a position to do so.

The Massachusetts branch of the National Association of Retail Grocers of the United States convened on Monday following the bank closing and passed a resolution assuring consumers that through this Division they would make every effort

to provide food at fair prices and to extend credit, wherever possible, during the period of the bank holiday. The Division was assured by Charles F. Adams, Treasurer of the First National Stores, and by Sydney Rabinovitz, Treasurer of the Economy Stores, that they would immediately direct their managers to extend credit or accept bank checks from any persons whom they could recognize or who could present evidence of their residence in the neighborhood. Daily bulletins were issued by this Division calling upon the people of the Commonwealth to buy only sufficient food to supply them from day to day. Although many grocers were unable to provide credit because of the necessity of cash to replenish their stock, there was most gratifying co-operation, and no one went without food because of lack of ready cash. Prices of foodstuffs were not increased throughout the Commonwealth during this period. Notwithstanding the fact that farmer representatives in the Chicago market could not replenish the supply without actual cash payments to farmers, release of this cash by banks was accomplished in time to avert a crisis.

The Division has been determined, so far as its authority or influence extended, that home owners should be given every reasonable opportunity to retain possession of their homes. Although the President indicated at the outset of his administration that he intended to afford relief through the formation of the Federal Home Owners' Loan Corporation which would give an opportunity for many of our citizens to refinance and retain their property, there seemed to be an epidemic of foreclosures during March, April, May and June. Many of these cases were called to the attention of the Division and during these months it was able to postpone over 1,500 mortgage foreclosures. Although foreclosure is a vicious procedure which wipes out the life-savings of many of our citizens who have invested their savings in the purchase of homes, the fact remains that mortgage loans are necessarily made from the money of depositors in the banks. It became necessary in many instances to protect this deposit money when the equity holder could no longer pay either principal or interest. During the past year there were more foreclosures than in any other year on record; nevertheless the Division received unusual co-operation from banking institutions, and wherever foreclosures could be postponed, at the same time satisfying the banks that the depositors' money was sufficiently protected by such action, such arrangement was made.

The Federal Home Owners' Corporation was established by act of Congress signed by the President in June of this year. This act called for the establishment of state offices for the administration of federal funds. The Division immediately offered its assistance to the President of the United States and carried on, in an advisory capacity, for a period of two months after the act was signed and until such time as the state office was established here. The director of the Division was appointed a member of the Advisory Board of this organization. More concerning the functioning of this Corporation will be found in a later section of this report entitled "Shelter."

National farm relief was accomplished through the setting up of the Agricultural Administration with powers delegated to the Secretary of Agriculture to withdraw certain crops from production and to reimburse the farmer for these withdrawals through payments on a land lease, the financing of which was accomplished by processing taxes on commodities, the production of which was curtailed. The first processing tax was levied on wheat, amounting to 30c a bushel or $1.38 on a barrel of flour. It was announced that the price of bread would advance 2c per pound because of increased costs due to this processing tax. The Division immediately ascertained that the increased cost of flour due to this tax would result in an increase of only four-tenths of a cent per pound in the cost of bread, and, issued, thereupon, a demand that the 2c increase be retracted at once. The interests involved, however, quickly took advantage of the opportunity to secure inordinate profits on the assumption that the general public was gullible and would not know the difference. There was a rush to buy wheat futures, which caused an advance in the price of flour from $3 to $4 per barrel in the course of a week. When the President was informed of this fact, he immediately pegged the price, which largely eliminated speculation in bakery products, and brought the price of flour back to its former level. The prompt action taken in this instance was effective in regulating the price of bread to the consumer.

The Division has carried on an energetic fight to protect farmers and consumers of this Commonwealth against the monopolistic control of the sale of milk, details of which may be found in the section of this report entitled "Milk and Cream."

Although the NRA and other agencies of governmental relief have gone far to provide an increased purchasing power for those already employed in private industry, and for those put to work on public works projects, many citizens found their wages attached on the first pay day, leaving them without sufficient funds to pay current expenses. On an average, 40 persons per day sought the aid of the Division in adjusting problems of this sort. The policy of the Division in this respect is to assist the individual in preparing a budget in accordance with which all outstanding bills are pooled and the creditors are assured that definite weekly payments will be made on these bills; in numerous cases this has been accomplished without the extra expense of attachment fees and the resultant embarrassment suffered by persons who have secured employment. Relief from attachments is but one of the many individual economic problems that the Division has been called upon to adjust. Except in a few instances, it was possible to secure the co-operation of all firms or individuals who were requested to make adjustments which would eventually work out to the mutual benefit of both parties.

The cost of living index for Massachusetts has been prepared monthly and distributed to many agencies throughout the country. The Division assisted the State of New Hampshire, upon request of its Governor, in establishing methods of procuring and compiling this information for the State of New Hampshire. The same weightings by which the elements in the budget are apportioned in Massachusetts are applied in most of the States.

Rent and Housing

In the reports of the Division in former years the housing problem since 1919, and the effect on rentals have been discussed. The culmination of the serious effects of the speculative practices in 1929 and for several years thereafter apparently has been reached. During the past year there were 12,171 foreclosures in Massachusetts, and the loan agencies of the Commonwealth, such as co-operative banks, savings banks, trust companies, and credit unions, have approximately 120 million dollars worth of real estate in their possession. This condition has worked to the disadvantage of those still retaining an actual or a presumptive equity in property for which they have been unable to obtain rentals sufficient to cover the fixed charges and to justify the original loans by the banks. Relief for property owners in such a situation can be accomplished by adjustments on a lower basis of valuation by the banks holding the foreclosed property, but such method of adjustment is neither sound nor fair.

Banks, in many instances, have so operated as to cause a highly competitive condition in the rental of housing accommodations with the result that many additional properties are turned back to the banks, because of the inability of the owners to meet this competition. During the period of speculation, the Division was on the alert in its denouncement of exorbitant rental charges. At the present time the income from rented property is often inadequate to cover fixed charges, and reasonable profit on the investment.

Many owners, under the stress of present conditions, have adopted the policy of giving concessions of one, two and three months' rent free, which has become almost universal, and prospective tenants today, particularly in heated apartments, first ask the question: "How many months' concession do you give," before they inquire as to the monthly rental charges. It will be difficult to correct this practice, but it is necessary, in order that there may be a stabilization of real estate investments, that rental charges be determined on the basis of costs of operation, as is the case of any commodity and the owner of the property has no more justification for granting concessions in the form of free rent for a term than has the grocer to give three additional pounds of butter to a customer who purchases ten pounds.

Eventually the supply of properties for rental and the demand for them will be more nearly equalized and the practice of granting free rental for one or more months will no longer prevail, but this condition will never be corrected until the titular holders of property realize that their equity represents but a small part of the money value of the property and that, in most instances, eighty to ninety per

cent of the value of the property is represented by the mortgage loan thereon. No owner of property is justified in granting free rental for a time or in charging such a low rental as to reduce the return on his property below the fixed income necessary to meet the financial obligations which he has assumed in connection with the property. By so doing, he is jeopardizing the interests of the mortgagor.

Although a cursory survey of vacancies might indicate that no further building will be necessary for some years to come, such is not the case. The surplus of homes for sale or to let, at the present time, is due to the "doubling up" of family groups. When business improves there will be a demand for new dwellings for separate occupancy by families who have been living in crowded conditions. Many marriages have also been postponed during the depression, which has further reduced the demand for vacant houses and apartments. It is conservatively estimated that with the return to normal times, the present vacancies will soon be occupied and a demand created for further housing facilities sufficient to accommodate at least twenty thousand families.

During the next few years, the tendency will probably be toward the construction of single family homes, at a moderate cost of about $5,000 each, and these will for the most part be located in suburban areas, where land is plentiful and where land values are reasonable.

The Federal Emergency Housing Corporation of the Public Works Administration has recently been organized for the purpose of carrying out housing projects which are intended to eliminate slum conditions by providing sufficient low-rental dwellings to compete with the cost of living in slum districts. In Massachusetts there are many areas, particularly in the industrial cities, where a large number of houses might be considered as uninhabitable and beyond the point of profitable rehabilitation, yet the fact remains that unemployment and reduced earning power necessitate present occupation of these buildings because of the low rentals afforded. The restoration of these poorer housing areas cannot be undertaken without capital, either from governmental or private sources. Whether it be through governmental assistance or otherwise, the endeavor will be futile unless it can be accomplished at cost, including the purchase and demolition of buildings and the construction of new buildings, so as to provide rentals not to exceed $7 a month per room. All persons naturally are desirous of improving their standards of living and oftentimes one is actuated more by pride than prudence. In any housing program it is the duty of those directing it to make sure that it does not result in a detriment to the health and welfare of those whom it is proposed to assist.

In England, as far back as 1927, the elimination of slum areas was seriously undertaken but apparently the facilities afforded in the new dwellings were too elaborate because it has been found that the people moving into the new houses were forced to skimp on food in order to have money enough left for the payment of rent. Dr. G. C. M. MacGonigle, Medical Officer for Stockton-on-Tees, in an address before the British Royal Society of Medicine described conditions in his town as follows: "In the fall of 1927, a slum area known as Housewife Lane was evacuated and 152 families living there moved to the improved area, the Mt. Pleasant Estate. A similar area, known as the Riverside, remained in its original form and provided a control. The Mt. Pleasant Estate seemed to offer everything that modern sanitary science could demand, while the Riverside area remained a typical slum district. In spite of the improvement in housing conditions, there was an increase of 8.47 per one thousand deaths for the people who had been housed on the excellent modern estate and a decrease of 2.9 per one thousand for those who had remained in the old slum conditions."

Dr. MacGonigle dealt at some length with the various causes of death in the new area and concluded that the increased rate could not be ascribed to such environmental factors as housing, drainage, over-crowded or unsanitary conditions. There was one striking difference in the Mt. Pleasant Estate; rents were higher and consequently there was less money to spend for food. He said, further, that it has been shown almost beyond any shadow of doubt that this increased death rate is co-related with diminishing expenditure for food consequent on the increase in rents.

The Division recommends and encourages the utilization of capital for the rehabilitation of certain residential districts. These projects can best be accomplished by working in close co-operation with family welfare and other social welfare organizations in the communities in which such construction is contemplated.

These organizations are familiar with the earning power and the amount the prospective tenants in the new area are able to pay for rent. They also possess intimate knowledge of social conditions, all of which information will be valuable to those designated to provide additional housing facilities.

The Federal Home Owners' Loan Corporation

In June, 1933, the President of the United States signed the act creating the Home Owners' Loan Corporation. The creation of this new organization was for the purpose of preventing foreclosure of homes and to assist financial institutions which, in many instances, were forced to foreclose, to protect depositors' money invested in these institutions. The procedure followed in refinancing is to arrange for the exchange of the mortgage for a bond of the Home Owners' Loan Corporation. To bring out more emphatically the fact that this assistance is applicable to individual home owners, the act limited assistance to persons occupying part of the property and only to those homes the value of which is $20,000 or less.

Although this corporation was created by act of Congress and provided a fund of two hundred million dollars, it provided a guarantee of interest payments only to holders of bonds; therefore, it became optional for banks and other financial institutions to accept or reject these bonds in lieu of a mortgage. Because of the type of property on which these loans were made, there is every indication that the great majority of principal and interest payments will be paid by the equity holder until the obligation has matured.

However, there is sometimes the necessity of turning bonds into cash, a procedure which, if followed in the case of Home Owners' Loan bonds, would result in the reduction of their par value and eventually cause a direct loss of depositors' money because of the necessity of accepting the par value of the bonds at the time. President Roosevelt has recognized this condition and has recommended that Congress pass an amendment to the present act which would guarantee the principal as well as the interest on these bonds.

Notwithstanding the slight uncertainty as to the future value of these bonds, banking institutions of this Commonwealth have expressed their confidence in the government by agreeing to accept the Home Owners' Loan Corporation bonds in lieu of mortgages in almost every instance. Over 4,000 new loans have been granted in this Commonwealth, averaging about $4,000 each, and close to 5,000 more have been approved and will no doubt be refinanced within the next few months.

Upon the establishment of branch offices of the corporation in this Commonwealth, many people sought assistance who were not actually in need of such unusual aid, but who saw in it the possibility of refinancing at a saving. This misunderstanding was soon corrected by a statement emanating from this office and that of the Corporation.

There are two ways in which relief may be obtained: — first, the holder of the mortgage may be willing to exchange it for a bond with the Home Owners' Loan Corporation on which the interest is guaranteed by the government and with every possibility within the next few months that the principal will be guaranteed. The second method of relief is by a direct cash loan to take up the mortgage. Cash loans are made only when the mortgage does not exceed 40 per cent of the value of the property and provided the home owner is unable to procure the cash through other channels. The problem of financing homes has become more and more acute each month for the past four years. The private source of mortgage funds continues to dry up, and the stream of money is not flowing into the financing of homes. Fully 25 per cent of the mortgages on homes are in default, and it is the desire of the government to assist the owners to retain the property in which they have invested their savings.

Home owners had no way of knowing, nor did they anticipate, that they would be called upon to make payment in full or in part upon the maturity of their mortgages, and therefore, there are large numbers who need assistance. There are also many who purchased at a time when their income was assured and who found that reduced income and unemployment caused them to default in payment on principal, interest and taxes.

The government, practically and by psychological influence, intends through this refinancing assistance to perpetuate the inherent desire of most people to own their

own homes. There is a possibility that with this assistance a new market will be developed for home building and home ownership, as it will create a desire to save and thereby replenish funds in banks that can be loaned for this purpose. Refinancing can be accomplished by applying to the local office of the Federal Home Owners' Loan Corporation where an application form is provided calling for a complete description of the property and pertinent information concerning the applicant. This application is then referred to the appraisal department. The property is visited and a report made as to its present value and the amount that can be loaned thereon. The Corporation will refinance up to 80 per cent of the value of the home; any accrued taxes, assessments, necessary repairs and maintenance will be paid in cash, provided the whole advance does not exceed 80 per cent of the value. The Corporation is not immediately concerned with the holder of the outstanding mortgage but deals directly with home owners irrespective of whether they have borrowed their money from insurance companies, mortgage companies, banks, building and loan associations, or individuals. In order to be able to finance up to 80 per cent of the value of the property, however, it is necessary for the holder of the mortgage to accept the bonds of the Corporation.

Homes lost by foreclosure sale under trust deed or power of attorney or by voluntary surrender by the mortgagee may be recovered within two years from the foreclosure, provided, however, that the present holder will take bonds as would be necessary were he to continue to hold the mortgage.

The policy of appraisal is based on three ratings: (1) the present market value, (2) the reproduction cost less depreciation and (3) the value as arrived at by capitalization of the reasonable rental value of the home during the last ten years. No loans will be made on property containing more than four families. The bonds payable at four per cent interest are tax-free bonds which is a further incentive to exchange mortgages for them. The Division has collaborated with the government in this as in other recovery work in every possible way. Many people in the respective districts have been referred to the local Home Owners' Loan Corporation office, after the benefits of this act were thoroughly explained to them.

Agricultural Administration

The Agricultural Adjustment Act was passed by the 73rd Congress and became a law May 12, 1933. This Act granted specific authority to the Secretary of Agriculture to organize divisions within his department to regulate production of farm commodities for the purpose of increasing the purchasing power of the farmer in proportion to the increased prices of industrial products. In the preamble to the Act it was declared that conditions in the agricultural industry rendered imperative the enactment of such legislation in the interests of the farmer. The preamble reads as follows:

> "That the present acute economic emergency being in part the consequence of a severe and increasing disparity between the prices of agricultural and other commodities, which disparity has largely destroyed the purchasing power of farmers for industrial products, has broken down the orderly exchange of commodities, and has seriously impaired the agricultural assets supporting the national structure, it is hereby declared that these conditions in the basic industry of agriculture have affected transactions in agricultural commodities with a national public interest, have burdened and obstructed the normal currents of commerce in such commodities, and render imperative the immediate enactment of title I of this Act."

Milk and Cream

In Section 8 of the Agricultural Act, the Secretary of Agriculture was authorized to enter into marketing agreements with processors, associations of producers and others engaged in the handling, in interstate or foreign commerce, of any agricultural commodity or product thereof, after due notice and opportunity for hearing to interested parties. Under this section, the Secretary of Agriculture has attempted through marketing agreements to bring about a parity of prices to dairy farmers of the country.

When the Dairy Division was first established a marketing agreement was promulgated by the Secretary of Agriculture which did not prove to be effective in accomplishing the purpose for which it was intended. This agreement covered what is known as the New England Milk Shed, made up of producers in Maine, New Hampshire, Vermont, a small part of New York, and Massachusetts, who serve consumers in the Boston area. Although the Director of this Division protested vigorously against the adoption of the agreement, stating that it would defeat the purpose of the Act and result in profiteering and reduced return to the farmer, this agreement became effective on November 3, 1933. A brief resumé of conditions under this agreement and its effect upon the community follows. The agreement provided for an equalization pool and base ratings which at the outset required Massachusetts farmers to contribute substantially to this pool for the purpose of compensating out-of-State farmers for an uncontrolled surplus. The ratings in Massachusetts were estimated in many instances at a time when tuberculin tests were being conducted by the State and many of the herd eliminated. It provided for surplus payments based on an out-of-State butter price, which, during the period of the agreement, was the lowest for fifty years. It called for fixed prices at wholesale and retail, which, particularly in the case of cream, substantially reduced cream consumption and caused a psychological boycott because of public disapproval of the fixed and excessive prices, which actually resulted in reduced returns to the farmer. So determined were the protests from the farmers and consumers that the Secretary of Agriculture sent a federal board to Boston to hear complaints and evidence, and to consider proposed amendments that might serve to relieve the existing oppressive conditions.

This federal board took back to Washington three thousand typewritten pages of testimony, but before the Secretary of Agriculture could make a complete perusal of this testimony, he became convinced that the conditions here were unsatisfactory and served notice of his intention to terminate the agreement.

At the outset the Dairy Division decided that they would recognize majority groups in any given market, whereupon Consolidated Dairies was incorporated in this market and at least 70 per cent of the farmers serving the market became members and by so doing conferred authority upon the officers of the organization to represent them in the drafting of the agreement. The dealers served by Consolidated Dairies also became a party to the agreement because they served approximately 70 per cent of the consumers. These two groups therefore became the proponents of the agreement. The program of the distributor parties to the agreement was to bring about a fixed scale of prices which would eliminate price differentials then existing between cash-and-carry stores and home delivery groups. The International Milk Dealers Association, with headquarters in Chicago, immediately informed their members throughout the country that they approved of this arrangement and urged all of their members to do everything possible to make it effective.

The milk industry in New England, and Massachusetts particularly, is still in a chaotic condition, although the Secretary of Agriculture has terminated the marketing agreement and has issued a statement of policy coinciding with that of this Division, which, in substance, calls for fixed prices to be paid the producer only. The distribution of milk and cream should be governed by the law of supply and demand and the stabilization elements which restrict resale, either at wholesale or retail, below the cost of production, processing, delivery and any other operating costs entailed in serving the consumer.

This Division is determined that any proposed benefits to the dairy farmers of Massachusetts shall be actual rather than presumptive benefits, which in the past have actually accrued to the benefit of other parties. The return to freedom of purchase, if, when and where the consumer pleases has already resulted in increased consumption and the farmer has materially benefited as a result of this Division's proposals.

Agricultural Relief

For several years past excessive crop production has brought about a most unusual condition. Someone has coined a phrase which aptly fits the situation, — "starvation in the midst of plenty." It is a fact that crops have rotted in the ground and storehouses have been jammed with food while some people in cities have obtained their food from garbage cans. There have been instances where farmers have dumped milk into sewers while children in schools only a few miles away were fainting from hunger at their desks.

It is for the purpose of eliminating conditions such as these that the Agricultural Administration Act was given extraordinary authority to readjust matters. It has undertaken by various methods to dispose of crop surpluses and prevent future over-production. The first and most common method of control attempted by the Secretary of Agriculture was accomplished by estimating future consumptive demand and eliminating certain acreage from production. The act itself distinctly specifies seven commodities which can be so controlled, — wheat, corn, cotton, tobacco, butterfat, hogs and rice. The farmer who reduces his acreage receives compensation from the government commensurate with the amount of land taken out of production. The government obtains this money to pay the farmers by a processing tax which is levied on the commodities referred to and which eventually reaches the consumer in the form of higher prices for these articles.

As further protection for the farmer, assuming that higher prices resulting from these processing taxes would divert consumption to other foods, the law provides that compensatory taxes can be levied against competing products; therefore, production of meats competing with pork can be regulated through taxation and the consumer pays the bill. Thus far processing taxes have been placed on two commodities, cotton and wheat. Ten and one-half million acres of cotton have been withdrawn from productive use, and farmers have been paid one hundred and eleven million dollars as compensation. About eleven million acres of wheat have been taken out of production and the farmers paid proportionately. It may be that such a program will eventually bring about a more intelligent system of production and marketing, as the farmer will be made to realize that over-production causes surplus, and surplus causes low return. Whether it be food or any other commodity, it must be remembered that consumptive demand only absorbs that which can be purchased at prices commensurate with the earning power of consumers.

To further expand the relation between consumers' demand and over-production, let us assume that a family consumes twelve barrels of flour a year. Regardless of how cheap flour may be, this family could not use any more; therefore, providing for them on the basis of fifteen barrels creates a surplus of three barrels and reduces the return to the farmer on his entire output. In fact, he receives less for the fifteen barrels than he would have received for the twelve barrels, if sold at ordinary prices. This surplus multiplied by millions, representing reduced demand by all families in the United States, is enormous, and one can readily understand why farmers who have insisted on planting all of their acreage now find themselves without sufficient income to pay interest on their mortgages and other operating expense of the farm.

The farm relief program is economically sound, and, if carried forward under the intelligent guidance of men conversant with farm conditions, the farmer will be permanently benefited by the control of production. Unfortunately, as is the case in many forms of governmental assistance proposed, highly organized groups representing special interests have established themselves in Washington and have sponsored specific demands contrary to the true principles of stabilization or economic recovery through farm relief, but Secretary Wallace has broad vision, and has nipped most of these attempts in the bud, and the representatives of the special interests have been forced to leave Washington without obtaining special favor.

The foregoing statement with reference to national measures in the interests of the farmer is included in this report because of the effect of such measures on the Massachusetts producers and consumers. It was estimated at the outset that because of the geographical location of Massachusetts, and the necessity of transporting into the State over 90 per cent of the food required, the food bill in Massachusetts alone would be increased by at least two hundred million dollars a year as

a result of farm relief. It is imperative, therefore, that the increased prices resulting from the adoption of the government relief program are actual increases made necessary by the increased cost of all services from the farm to the consumers' homes.

Every factor of service from farm to home has been compelled to add something to the cost of commodities, to offset increased operating costs resulting from the NRA program. All food passes through the expensive stages of packing, loading, freight, refrigeration, hauling, commission, reconditioning and retailing. It is necessary to ascertain whether speculative elements have crept into any phase of this service which would thereby exploit the consumer and result in profiteering. The Division has been alert to observe attempts of this kind, all of which it has hastened to stop. While the estimate that there would be an increase of at least 200 million dollars in the cost of foodstuffs has been found to be correct, no part of this increase, which is quite appreciable, can be said to be excessive or due to manipulation.

Every attempt to fix prices of commodities has been opposed by the Division because it is felt that such procedure is contrary to the principles of national recovery. Consumers in Massachusetts are instinctively shoppers, and consequently are considered thrifty. The effectiveness of the Division has been greatly increased because consumers serve as price investigators, and report, for investigation, prices which appear to be unreasonable. To eliminate the opportunity for the consumer to "shop around" would seriously affect competitive markets.

Psychological price fixing can be brought about by insistence by the government that prices shall be maintained consistent with cost. The sale of commodities below cost is in violation of the true theory of recovery, closes merchandising outlets that have every legitimate right to exist, and, by process of elimination, will eventually set up non-competitive groups which could raise prices at will. The theory of eliminating loss leaders is still new. The President of the United States has said in very understandable language that he will not allow commodities to be sold below cost any more than he will tolerate profiteering.

Ninety percent of the total number of persons gainfully employed in Massachusetts are wage-earners, leaving but ten per cent who are engaged in business for a profit. The wages of this 90 per cent must be sufficient to provide through purchases for the support of the other ten per cent, and unless this ten per cent recognizes the necessity of co-operating in a program of national recovery by selling their commodities at a reasonable profit, they are not entitled to the support of the community.

The soundness of the economic structure of the United States depends upon the ability of the consuming public of one section to use the products which another section produces, whether it be corn, cotton, leather, ore, coal, or any other commodity. No manufacturing industry can continue to prosper unless the products thereof are fully absorbed by the consuming public. Unless the wheels within wheels are kept moving, the whole structure will crumble and producers will be unable to dispose of their products because of the lack of purchasing power on the part of the consumers.

It is apparent that the national government proposes to regulate production of manufactured goods in order to prevent seasonal unemployment through overproduction in certain months, and curtailment during other months of the year. Thus the continuous purchasing power of consumers will be assured through regular employment at wages sufficient to permit of the maintenance of their customary standard of living.

The various phases of recovery affecting the every-day life of our people could be discussed at some length, but it suffices to say in this connection that the Division has endeavored to act in conformity with the national recovery program. Although not always fully satisfied with certain measures in their effect in Massachusetts, the officials of the Division have worked harmoniously with national administrators and, without exception, conditions have been corrected when proven to be wrong.

Petroleum Products

The production and distribution of petroleum and its products is a most important factor in the every day life of the individual, the community and all industry. Street and steam railway lines in all parts of the country have been replaced in whole or in part by bus and truck lines, many of which are operated by the same public utility companies which also operate the railways. In many instances large numbers of trucks are operated by companies whose lines cover the entire country. Many communities would be entirely isolated if bus and truck service were withdrawn.

The industry which supplies the fuel for this great transportation system and for the millions of automobiles used for business or pleasure has been in a somewhat unsatisfactory condition for a number of years, due chiefly to over-production rather than any decrease in consumption. While several States have attempted to restrict the supply through legislation, no satisfactory results have been accomplished and sharp competition resulting from the huge over-supply has caused reported heavy losses by many large companies.

The code for the stabilization of production, transportation, refining and marketing of petroleum and its products by the federal government under the provisions of the National Industrial Recovery Act became effective on September 2, 1933. Restrictions imposed by this new code should greatly benefit the industry, as one of its provisions is that the required production shall be estimated at intervals by a federal agency, and that this required production shall be equitably allotted among the several States and become the operative schedule upon approval by the President.

Other rules and regulations prevent practices which have been a matter of much controversy in the past, including the granting of concessions to retailers in the form of equipment loaned, leased, or otherwise furnished, buildings and repair work, light poles, grease-pits, etc. Failure to observe posted prices through resort to rebates, allowances, concessions, benefits or scrip-books, is also forbidden. Sale by refineries, jobbers, wholesalers and retailers of refined petroleum products at below cost of manufacture is prohibited, and all such products imported into the State where sold shall not be sold below cost, plus reasonable expense in cost of marketing, except to meet competition for such period as may be required to obtain proper governmental action.

While it was felt at the time of the adoption of the code that no price fixing action would be necessary, conditions within the industry were such that Petroleum Administrator Ickes, on October 16th, 1933, ordered the establishment of minimum prices for crude oil and many of its by-products and promulgated a schedule of prices effective December 1st, 1933.

It is apparent that in formulating the oil industry code, an honest effort was made to arrive at a system of producing and marketing petroleum products which would serve the best interests of all concerned but, like all matters of such magnitude, it was impossible to create a code in the first instance which would satisfy all interests and it will undoubtedly require many changes and amendments before it will receive the support and approval of those now opposed to certain sections contained in the document.

During 1933, gasoline prices at retail in Massachusetts remained at a comparatively low level when it is considered that this important product was subject to federal and State taxes totaling 4c per gallon during the first six months and 4½c per gallon for the latter half of the year.

Cash discounts of 2c per gallon below the posted prices of 14c to 18c during the year were prevalent and consumers willing to shop around were able to obtain even larger concessions from the posted price. The Division received only a few complaints relative to gasoline during the year and these were speedily adjusted or explained to the satisfaction of all concerned.

The growing use of range oil burners in Massachusetts has greatly increased the consumption of range oil as a fuel. Prices of this fuel, however, remained at about the same level as in 1932. The oil interests are being afforded an opportunity to further increase the consumption of their fuel oil product, providing they have the foresight to keep the price at a low level and thereby continue it as a competitor of solid fuels.

Trend of Living Costs

The Division is required by law to study and investigate the circumstances affecting the prices of commodities which are necessaries of life, and, in this connection, has continued to compute and publish monthly a cost of living index for Massachusetts. Increased demand for these figures during the past year, both for current and prior months, indicate their value to business and welfare organizations, civic and governmental groups, and the public at large. Requests are received daily from organizations, schools, colleges, libraries and business houses located in other States for information relating to living costs in Massachusetts.

As this index is often used in connection with wage and salary disputes and adjustments, the Division has continually recommended that changed living standards be considered when the index is used for this purpose. The index is based on commodities and services in general use in 1913, and no provision has been made for adjustment of the index in conformity with changes in the standard of living because any changes in the list of items included in the index would tend to destroy its value for purposes of comparison over a long period of time.

The combined cost of living index number increased during 1933 from 121.2 in January to 128.8 in October, and fell to 128.2 in December. The low point of the year (118.5) was in March. Comparable index numbers by months for 1932 and 1933 follows:

Combined Cost of Living Index — 1913 = 100

Month	*1932*	*1933*	*Month*	*1932*	*1933*
January	134.0	121.2	July	128.5	124.3
February	131.6	119.8	August	128.5	125.7
March	130.8	118.5	September	125.2	127.4
April	129.3	118.9	October	124.7	128.8
May	127.5	119.7	November	122.7	128.7
June	125.8	121.0	December	122.8	128.2

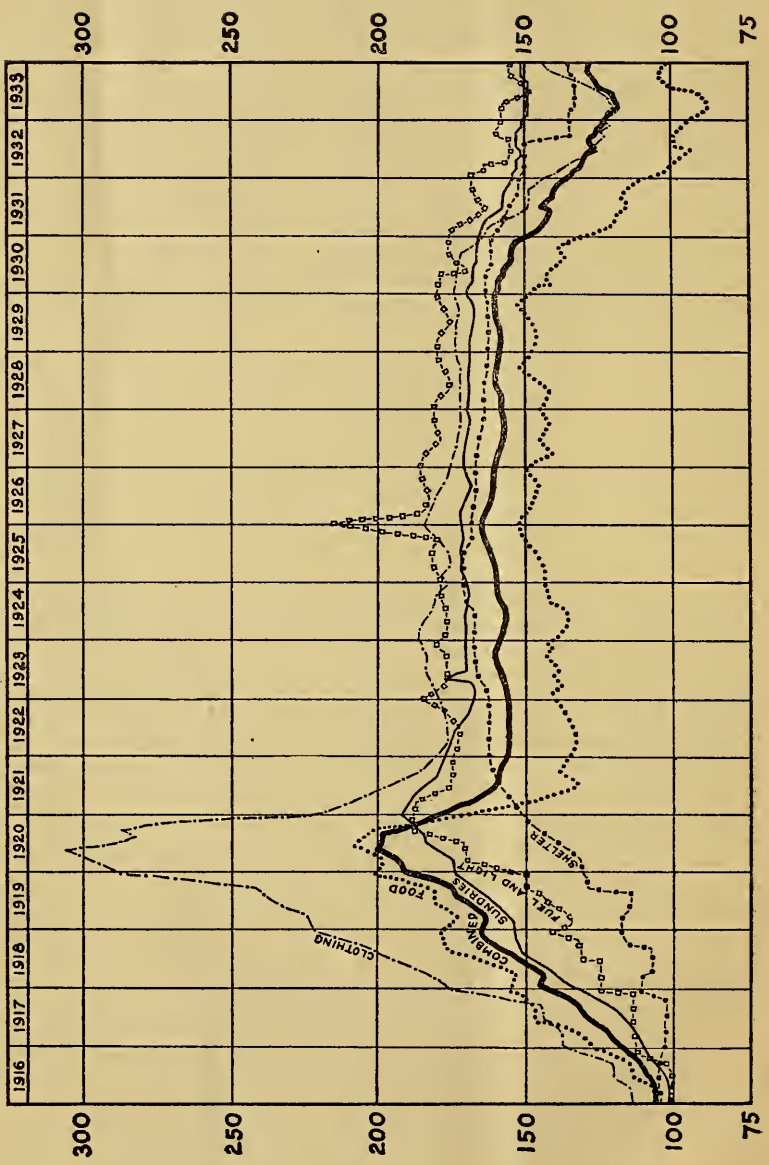
These index numbers expressed in dollars signify that in December, 1933, $128.20 was required to purchase the same quantity of commodities as could be purchased for $121.20 in January, 1933, and for $100 in 1913, the base year.

While the federal measures for recovery adopted during the past year undoubtedly resulted in an increase in the income of many families, the extent to which there has been an increase in the purchasing power of consumers in general has not been definitely determined. Various processing taxes designed to aid the producer, and measures adopted in order to stabilize commodity prices at a higher level have caused increases in prices of many articles and services termed "necessaries of life."

The amount of income determines the purchasing power of consumers and increased prices without a corresponding increase in income naturally result in a decrease in the purchasing power of such income. Many families have gotten deeply in debt during the years of depression, and naturally are endeavoring to reduce their indebtedness before increasing their expenditures. Accordingly, no large increase in the sale of goods can be expected until such time as the income of a great number of consumers shall exceed necessary payments on account of their indebtedness in addition to their current living expenses.

The civil works and public works projects, while not adding any large income for expenditure by those employed, has resulted in restoring their self-respect, and has reduced materially public welfare expenditures and the drain on private charity funds. The large numbers applying for such employment indicate their willingness to perform any kind of work by which they can secure wages. It is very desirable that upon the completion of these projects, other projects financed either by the federal, state or municipal governments be provided in order to furnish employment until such time as those unemployed shall be able to obtain employment in private industry and business. A return to the welfare lists of large numbers of unemployed persons at a time when living costs are at a higher level than when they were employed on public works would be to them a matter of serious concern.

TREND OF COST OF LIVING IN MASSACHUSETTS, 1916–1933:
BY MAJOR ELEMENTS
(BASE — 1913 = 100)



Food. — Food is given a weighting of 37.6 per cent in the total budget as computed by the Division and the index for this item is derived from retail prices of thirty-seven staple food commodities collected monthly from chain and service stores throughout the State.

The food index during the first three months of 1933 continued to decrease as in 1932. Beginning in April, higher monthly prices of most food items caused the index to advance from 86.5 in March to 101.6 in December, or about 17½ per cent during that period.

Food is usually purchased daily in small lots because large numbers of families are either without the necessary money or storage space to enable them to purchase surplus stocks when prices are at a low level. Higher prices are, therefore, immediately reflected in family expenditures for food. A large percentage of the food consumed in Massachusetts has to be transported from other States, but efficient, systematic methods of operation adopted by merchants in this State have largely overcome this handicap, and prices of commodities in many cases are even lower than in States more conveniently located near the source of supply.

The index number for meat products included in the food section decreased in the first four months of the year to 91.5 in April. During the following six months increases were recorded, and in October the index number was 103.3. In November and December, sharp decreases were noted, and the index for December was 96.8 as compared with 94.7 in January, 1933.

According to a report of the Institute of American Meat Packers, meat consumption in the United States increased four pounds per capita, or about one-half billion pounds during 1933, and in that year production was about one billion pounds greater than in 1932.

Heavy production during the later months, coupled with relatively low purchasing power of the consumer, caused an increase in stocks and forced prices to a materially lower level during the last two months of the year. Data relative to production and consumption of meat under federal inspection during the years 1932 and 1933 in the United States follow:

Kind of Meat	Production		Consumption	
	1932	*1933*	*1932*	*1933*
Beef	3,940,000,000	4,501,000,000	4,417,000,000	5,005,000,000
Veal	454,000,000	501,000,000		
Lamb and mutton	682,000,000	673,000,000	681,000,000	672,000,000
Pork	5,696,000,000	5,969,000,000	5,658,000,000	5,716,000,000
Lard	1,573,000,000	1,689,000,000	1,031,000,000	1,018,000,000
Total	12,345,000,000	13,333,000,000	11,787,000,000	12,411,000,000

The milk problem in Massachusetts, which has been a matter of much controversy throughout the year, has been discussed in an earlier section of this report.

In accordance with the plans of the Federal Recovery Administration, which plans include the purchase of surplus products for the express purpose of increasing commodity prices, and their distribution to needy families, the Federal Surplus Relief Corporation was formed with Hon. Harry Hopkins of the Federal Relief Administration as President, Hon. Henry A. Wallace, Secretary of Agriculture, as Vice-president, and Hon. Harold L. Ickes, Secretary of Interior, as Treasurer..

Commodities purchased by this Corporation with government funds are being distributed through local welfare boards and are available to persons receiving welfare aid, and to other needy families. Flour and salt pork have already been distributed in large quantities in Massachusetts, and commodities which, it is stated, will be included in future distributions are smoked pork, beef, butter, cheese, lard, oranges and other products which are classed as surplus stocks. Distribution of coal and other items not classed as surplus will also be included as part of the relief program.

The proper administration of this distribution should prove of great benefit to needy families because, according to the announcement, these supplies are to be considered as supplementary relief and should not in any way effect a reduction in amount of aid given through public welfare organizations.

Clothing. — Clothing expenditures represent 12.8 per cent in the budget as computed by the Division, and are apportioned about equally between the men's and women's clothing groups.

The index for combined clothing is largely based on a cost of staple goods entering into the manufacture of wearing apparel, because the finished product is a difficult item to standardize. Variations in styles and types of merchandise, and costs of tailoring which affect the quality and price of the finished garment result in a wide range of prices for items made from the same or similar fabrics.

Many articles of clothing now in demand were not in general use in 1913, the base year of the budget and are, therefore, not included in the clothing index. The Division does collect prices of many of these items, but merely for the purpose of making a comparison with the price trends of the usual budget items with which there is usually a close correspondence.

During 1933 the clothing index increased from 121.2 in January to 143.4 in December, and the low point of the year was 119.1 in March. Higher prices of all clothing items were noted during this period.

Fuel and Light. — The fuel and light items of the budget are given a weighting of 5 per cent in the total and the prices of anthracite coal, gas, electricity and kerosene, are included with respective weights of 61, 20, 15 and 4. The prices of anthracite coal are collected monthly from representative coal dealers, prices of gas and electricity are furnished by the Department of Public Utilities, and the prices of kerosene are reported on the regular grocery questionnaire.

During the first six months of 1933, the index for this group dropped from 157.1 in January to 148.8 in June, due to lower prices of coal and kerosene. During the last half of the year a gradual increase to 156.8 in December was noted. Prices of gas and electricity, which are products of utility companies under State control, remained at about the same level during the entire year.

The Massachusetts fuel bill is still a matter of much concern to the consumer. While the price of anthracite is at a somewhat lower level, it is still 78 per cent above the price in 1913, and has not been reduced in the same proportion as other commodities which are considered necessaries of life. This is due chiefly to circumstances beyond the control of local dealers. The mining of domestic anthracite is done at a relatively high labor cost because of excessive unionization in the industry. Foreign products offer practically the only competition and the prices of such fuels are largely based on the price charged for domestic products.

During the first eight months of the 1933–1934 coal year, domestic anthracite deliveries in Massachusetts dropped approximately 250,000 tons, and the amount of 1,561,000 tons was over a million tons less than the amount for the corresponding period in 1930–1931. While continued increase in the use of coke, oil and other substitutes accounts in part for the decreased anthracite demand, at least part of the lost market must be attributed to lack of sufficient funds in the hands of the consumer to purchase this high priced fuel.

The widespread use of range oil burners, which can be purchased on small payment contracts and which enable the consumer to control the use of fuel and purchase his supply in small quantities, undoubtedly, has been the cause of the large decrease in consumption of solid fuel.

Coke prices are largely based on the prevailing prices of anthracite rather than on the actual cost of production, but notwithstanding this fact, increased delivery figures for this fuel indicate that many consumers have turned from anthracite to the use of coke as a household fuel.

The result of a yearly survey to determine the relative importance of various fuels used in heating homes is given below:

	Coal Years	
Anthracite:	*1931–1932*	*1932–1933*
Domestic sizes	3,566,000 net tons	2,969,000 net tons
Buckwheat sizes	150,000 " "	150,000 " "
Bituminous Coal	600,000 " "	700,000 " "
Coke	980,000 " "	1,060,000 " "
Briquets	125,000 " "	105,000 " "
Oil	184,000,000 gallons	300,000,000 gallons
Gas Installations	5,100	4,927

The Federal Surplus Relief Corporation has announced that anthracite coal deliveries will become a part of the relief program, and it is estimated that more than

150,000 tons of anthracite will be delivered in Massachusetts through this agency. Under the policy adopted, local dealers will make deliveries upon approval by the local welfare boards, and, in cases in which the recipient is receiving aid from such boards, the delivery charge to local dealers, which has been set at $2.50 per ton by the government agency, will be paid by the welfare board. To persons not receiving public welfare aid coal will be delivered upon proof of its need, but the delivery charge must be paid either by the receiver of the coal or by some charity organization. This policy should prove advantageous both to the local welfare boards and to consumers. In the first instance, a large saving will result, and in the second a larger amount of fuel is made possible. The purchase of this fuel plus transportation to the dealers' yards will be paid from government funds.

The Division has continued to compile and issue detailed information relative to the fuel situation in New England and tables containing much comparable data for a series of years appear in Appendix II of this report. Other valuable information in the files of the Division is available for the use of business organizations and individuals upon request.

During the year, Representative Dwight S. Waring of Fall River requested the Division to investigate the prices being charged for anthracite coal in that city. It was found that lower transportation rates by tidewater might be taken advantage of and the saving passed on to the consumer, as has been done in the city of New Bedford.

According to press reports the findings of the Division were interpreted as a statement to the effect that dealers in Fall River were overcharging. This resulted in a temporary boycott of the local dealers. The Director of the Division visited the city and conferred with the dealers, and he assured them that it was the desire of the Division to lower the prices of fuel wherever possible, that no accusation was made to the effect that the dealers' profits were excessive, but that the fact still remained that the prices charged for anthracite were too high, due to fixed mine prices and fixed transportation charges over which local dealers had no control.

The investigation in Fall River brought to light a very interesting condition which exists in all mill cities, namely, that the added cost of fuel purchased by people whose earnings are moderate, is due to the extraordinary demand for Lehigh Valley coal, a free-burning fuel which generally retails for $1.00 or more than regular anthracite. It was found that people who work long hours, and, in most cases, leave home very early in the morning, preferred this coal because the furnace could be refueled without opening it up and without having to wait until the fire had sufficiently rekindled to be shut off for the day.

The Division assumed that any saving in transportation would be passed on to the consumer. During the year the Interstate Commerce Commission reduced rail transportation rates 65c per ton to Boston. Instead of this freight reduction being passed on to the consumer, 40c additional per ton was added to dealers' costs, a result, it is contended, of compliance with labor provisions of the NRA. The matter of securing lower prices for anthracite coal would seem to be within the control of the dealers affected, because reports show very definitely that consumers have turned to the use of other fuels. The consumption of anthracite is decreasing every year.

Sundries. — The sundries section of the budget includes a miscellaneous assortment of goods and services necessary for the operation of the home and not specified in other major budget sections.

Expenditures in this section represent 22.8 per cent of the total budget and the items, many of which are not standardized, cover a wide variety of consumers' needs and desires. These include carfare; medical care, drugs, toilet articles, etc.; furniture and household supplies; recreation, theatres, etc.; reading material, stationery and telephone calls; organization dues and insurance; contributions to church and charity; tobacco; candy, soft drinks, etc.; and ice.

The amount of income available for miscellaneous expenditures is commonly regarded as a measure of the standard of living. At times when incomes are large, conditions under which families live are improved but when incomes are abnormally low, the amount required for food, clothing, shelter and fuel leaves little available money for sundries, such as home conveniences, advancement, entertainment, and other items which should be regarded as necessary, even when the standards of living are at the minimum.

During the past year, problems of many families, who mortgaged future income in order to buy luxuries and semi-luxuries during a period of easy credit and who now find their income greatly reduced or entirely lost, were given personal attention by the Division. The willingness of most dealers and creditors to accept suggested compromise agreements for payment of bills or to delay drastic action in cases where it was not possible to meet any part of the obligation under existing conditions, greatly assisted the Division in the handling of these cases and prevented much undue suffering and the breaking up of homes of many families.

The only allowance made in the budget for savings is a limited amount for the item of insurance. Many families have found it not only impossible to continue payment for this protection during the past year, but have found it necessary to request the cash surrender value of policies, in some instances covering the entire family, in order to meet other obligations and preserve adequate living conditions in the home. Other thrifty families who were able to put aside a part of their income as savings at a time when the income exceeded the customary living expenses have been forced to withdraw these savings in order to provide for their immediate requirements.

In 1933 the sundries index increased from 148.8 in January to 151.1 in December, chiefly due to higher prices of ice, house-furnishings and tobacco.

Shelter. — The cost of shelter, which represents 21.8 per cent of the budget, was slightly lower during the greater part of the year but demands for higher rentals for unoccupied property during the last few months were reflected in an increase in the index from 133.0 to 135.0 or to the same level as in the latter part of 1932.

A serious problem has arisen due to the inability of a great many tenants to meet charges for rental from the small amount of income available. Climatic conditions make clothing and fuel important necessaries in Massachusetts. In many cases the entire income of a family has necessarily been expended for food, clothing and fuel, leaving nothing for rental. Owners of rented property for which they were not able to obtain payments for rent resorted to eviciton of non-paying tenants. Some landlords hesitated to take such action, and allowed the tenants to occupy the property for a few months in the hope that they would eventually obtain employment. Such procedure has often resulted in loss of the property by the equity holder, either through mortgage foreclosure or sale for taxes.

In cases where action has been taken and tenants evicted, many were without funds to pay either moving expenses or the necessary rental deposit to obtain new quarters, and welfare agencies found it necessary to find other homes for these families. In some communities a small allowance is provided out of public welfare funds for the payment of rent, but in many other instances no rent money is allowed for more than the first month, or a part of the first month, in which cases, the tenant unable to pay the rental is simply passed from one property to another where he can obtain shelter until such time as the new landlord can take action to evict him. The Division has attempted to assist both landlords and tenants in thousands of cases which have been brought to its attention during the year. These cases have been taken up directly with welfare organizaitons, city officials, and others, and landlords who lacked the necessary means to bring action for eviction of non-paying tenants have been referred to officials and agencies able to render aid in such cases.

Many family groups are now "doubled up" under one roof in order to reduce the per family expenditure for shelter, and many vacancies still exist in all types of residential property. These will be filled only when the incomes of families become sufficient to permit them to establish individual homes.

APPENDIX I

Table 1. — Cost of Living Index Numbers by Elements, 1919–1933 [1]

1919

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	180.1	174.2	174.1	176.6	179.7	181.0	812.2	187.4	182.0	184.7	188.9	189.1
Clothing	221.5	223.5	223.8	235.3	235.8	235.8	235.8	237.2	240.9	256.3	271.6	272.3
Shelter	118.4	118.4	118.4	115.5	115.5	115.5	115.5	115.5	115.5	129.6	129.6	129.6
Fuel and Light	143.1	135.1	135.1	135.7	140.0	144.3	145.8	150.1	150.1	150.7	152.9	153.5
Sundries	155.0	155.0	155.0	156.0	158.0	160.0	163.0	165.0	167.0	172.0	175.0	175.0
Combined	167.5	164.7	164.7	167.0	169.1	170.3	171.5	174.6	173.1	179.9	184.5	184.7

1920

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	200.9	195.5	198.9	198.2	207.9	207.9	216.9	205.1	202.5	194.7	187.2	179.6
Clothing	286.2	291.3	299.8	305.5	302.0	288.4	280.9	282.9	285.9	268.9	258.3	226.0
Shelter	131.0	131.0	131.0	133.8	134.9	139.4	139.4	142.4	147.8	147.8	150.6	151.7
Fuel and Light	154.2	160.7	161.6	170.8	171.1	171.7	172.1	175.0	188.5	189.2	190.0	189.9
Sundries	175.9	175.9	175.9	183.0	183.0	185.0	185.0	185.0	188.0	190.0	192.0	192.0
Combined	192.0	190.8	193.4	196.3	200.3	199.7	202.6	198.5	200.1	194.9	191.3	183.9

1921

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	171.5	158.6	145.1	142.1	135.3	133.5	139.5	142.0	139.9	138.7	137.2	139.4
Clothing	219.9	214.4	208.2	206.5	201.6	197.1	191.8	187.1	186.7	186.2	187.6	186.1
Shelter	151.7	151.7	153.2	156.3	159.4	159.4	159.4	159.4	161.0	161.0	161.0	161.0
Fuel and Light	188.8	188.3	187.5	177.4	176.8	176.1	175.9	175.9	175.4	180.9	180.0	180.5
Sundries	192.0	190.0	190.0	188.0	188.0	185.0	183.0	183.0	180.0	180.0	180.0	178.0
Combined	179.5	172.9	166.4	164.5	161.4	159.4	160.8	161.4	160.0	159.7	159.2	159.6

[1] Cost of living index numbers for the years 1910 to 1918 were compiled by the former Commission on the Necessaries of Life, and were published in its annual reports. The index numbers here given are in continuation of the series, and the same procedure was followed in their collection and compilation.

Table 1. — Cost of Living Index Numbers by Elements — Continued

1922

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	136.1	135.6	133.1	135.4	134.0	134.1	137.2	136.3	136.3	138.2	139.9	139.8
Clothing	180.1	179.2	176.9	176.5	176.1	176.5	176.1	174.9	177.6	178.4	179.1	179.4
Shelter	162.5	162.5	162.5	162.5	162.5	162.5	162.0	162.0	162.0	162.0	162.5	162.5
Fuel and Light	174.9	174.9	173.7	172.8	172.8	172.7	172.0	172.9	177.0	182.6	184.5	184.8
Sundries	178.0	177.0	177.0	174.0	174.0	174.0	174.0	172.0	169.7	169.7	169.7	168.8
Combined	157.3	156.8	155.3	155.6	154.9	155.0	156.2	155.3	155.4	156.6	157.7	157.5

1923

Food	139.3	141.3	138.8	139.3	141.0	140.0	143.4	142.0	143.5	144.9	142.0	144.1
Clothing	178.0	182.2	182.8	184.0	183.2	184.1	182.1	182.2	183.4	185.9	187.0	186.1
Shelter	162.5	162.5	164.5	166.0	166.5	167.0	167.0	167.0	167.0	167.5	167.5	167.5
Fuel and Light	184.8	184.2	178.2	178.6	177.5	177.4	178.2	177.0	177.7	181.6	182.1	181.7
Sundries	168.8	168.8	168.8	170.5	170.5	170.5	170.5	170.5	170.5	170.5	170.5	170.5
Combined	157.1	158.5	157.5	158.5	159.1	158.9	160.1	159.5	160.3	161.6	160.5	161.3

1924

Food	141.0	139.9	139.0	136.1	136.4	137.1	137.5	138.5	142.4	142.1	141.5	143.0
Clothing	186.8	187.4	186.0	184.9	183.3	181.6	181.4	178.8	180.6	180.1	178.4	181.2
Shelter	168.0	168.0	168.0	168.0	168.0	168.0	168.0	172.0	172.0	172.0	172.0	172.0
Fuel and Light	178.4	178.6	178.8	177.1	177.0	177.2	177.5	177.4	179.6	179.3	179.5	179.5
Sundries	171.4	171.4	171.4	171.4	171.4	171.4	171.4	170.5	170.5	170.5	170.5	172.2
Combined	160.1	159.7	159.2	157.7	157.6	157.7	157.8	158.4	160.5	160.3	159.8	161.2

1925

Food	144.7	142.8	144.4	143.4	143.7	146.8	147.9	150.3	150.3	153.1	154.1	155.6
Clothing	177.9	177.6	181.6	181.2	180.8	182.3	182.1	180.7	181.1	181.5	182.1	186.6
Shelter	172.0	172.0	172.0	172.0	172.0	172.0	172.0	172.0	170.0	170.0	170.0	170.0
Fuel and Light	179.9	180.0	175.6	175.7	175.7	176.6	178.5	181.2	181.2	181.2	186.4	197.4
Sundries	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	171.4	171.4	171.4	172.2
Combined	161.5	160.6	161.6	161.1	161.2	162.8	163.4	164.4	163.9	165.1	165.9	168.0

1926

Food	151.8	153.9	149.2	151.9	148.0	148.3	147.7	145.4	146.8	147.3	147.4	147.9
Clothing	184.5	181.7	182.3	179.2	180.3	181.2	178.6	178.7	177.0	177.7	177.5	177.5
Shelter	170.0	170.0	170.0	170.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0
Fuel and Light	214.6	198.0	183.3	181.4	181.9	182.0	183.3	184.4	184.4	185.2	185.7	185.5
Sundries	172.2	172.2	172.2	172.2	170.5	170.5	169.7	169.7	169.7	170.5	171.4	171.4
Combined	167.0	166.6	163.9	164.5	162.3	162.5	161.9	160.9	161.3	161.8	162.1	162.3

1927

Food	145.9	143.7	142.1	143.4	145.7	145.5	142.8	142.2	142.6	142.1	144.6	145.0
Clothing	176.1	176.3	175.1	175.0	173.9	173.3	170.2	171.6	172.5	172.1	172.8	172.8
Shelter	168.0	168.0	166.0	166.0	166.0	166.0	166.0	165.0	165.0	165.0	165.0	165.0
Fuel and Light	185.4	185.3	184.6	181.6	178.5	178.4	179.0	179.3	181.5	181.5	181.5	181.4
Sundries	171.4	171.4	171.4	170.5	170.5	170.5	170.5	170.5	169.7	169.7	170.5	170.5
Combined	161.2	160.3	159.0	159.2	159.9	159.7	158.6	158.0	158.2	158.0	159.3	159.5

1928

Food	145.4	144.2	142.2	144.6	146.1	144.6	148.6	149.3	152.7	150.0	149.0	147.6
Clothing	172.6	172.7	172.6	171.7	173.8	172.1	172.5	170.9	171.5	169.3	171.5	172.8
Shelter	165.0	165.0	165.0	165.0	165.0	165.0	165.0	163.0	163.0	163.0	163.0	163.0
Fuel and Light	181.4	181.4	181.2	175.4	175.4	175.4	175.4	175.5	177.9	177.9	179.7	179.6
Sundries	170.5	169.7	169.7	168.8	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
Combined	159.6	158.9	158.0	158.4	159.6	158.7	160.5	160.3	161.9	160.5	160.5	160.0

1929

Food	148.5	146.5	147.6	147.7	149.1	148.1	151.8	154.7	153.0	152.1	149.3	148.9
Clothing	173.3	170.1	174.1	173.6	173.6	173.6	172.2	173.6	173.2	173.5	173.6	174.0
Shelter	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0
Fuel and Light	179.5	179.6	179.7	177.9	174.2	174.2	176.4	176.3	178.9	179.0	179.1	179.3
Sundries	170.0	169.2	169.2	168.9	168.9	167.9	167.7	167.7	167.7	168.4	169.2	169.2
Combined	160.5	159.0	160.0	159.8	160.2	159.6	161.1	162.5	161.9	161.7	160.7	160.6

Table 1. — Cost of Living Index Numbers by Elements — Concluded

1930

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	146.4	145.8	141.9	142.1	141.7	139.3	137.6	136.6	137.2	137.0	132.9	130.8
Clothing	173.6	173.6	173.5	173.3	173.1	173.0	172.4	172.7	171.6	168.8	165.5	164.0
Shelter	163.0	163.0	163.0	163.0	163.0	161.0	161.0	161.0	161.0	161.0	161.0	160.5
Fuel and Light	179.4	179.4	178.3	178.1	170.7	170.7	172.1	174.3	175.0	175.8	175.4	175.5
Sundries	169.2	168.1	167.2	167.2	167.0	166.9	166.5	165.7	165.7	165.3	165.6	165.0
Combined	159.4	158.9	157.0	157.1	156.4	155.0	154.2	153.7	153.9	153.4	151.2	149.9

1931

Food	128.5	121.3	120.9	118.9	115.9	115.0	115.7	117.0	117.4	115.1	111.6	107.8
Clothing	162.4	157.5	156.6	154.5	151.0	149.2	149.1	148.6	148.4	148.0	145.8	145.0
Shelter	160.5	156.0	156.0	156.0	155.0	155.0	155.0	153.0	153.0	151.0	151.0	151.0
Fuel and Light	175.5	175.4	175.8	166.0	163.1	163.1	164.9	165.5	167.5	168.3	168.7	168.1
Sundries	164.2	163.8	162.2	161.3	158.8	157.5	157.5	157.0	157.0	156.6	156.0	154.6
Combined	148.6	143.9	143.3	141.5	141.1	140.2	145.0	140.4	140.7	139.3	137.5	135.7

1932

Food	105.6	102.2	100.3	98.6	96.2	93.0	98.8	99.3	99.2	97.4	95.8	94.9
Clothing	138.8	135.9	135.2	132.2	128.8	124.7	125.4	123.9	122.0	123.9	120.4	121.7
Shelter	151.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	135.0	135.0	135.0	135.0
Fuel and Light	168.0	164.0	164.0	155.8	154.2	153.5	154.9	154.9	158.9	159.9	157.3	156.8
Sundries	154.6	152.9	152.9	152.9	151.2	151.2	152.9	152.9	152.9	152.9	150.1	150.1
Combined	134.0	131.6	130.8	129.3	127.5	125.8	128.5	128.5	125.2	124.7	122.7	122.8

1933

Food	91.6	87.9	86.5	86.9	89.7	92.1	100.0	102.1	103.8	104.2	103.2	101.6
Clothing	121.2	121.5	119.1	120.7	121.7	124.6	126.6	130.8	135.7	140.4	142.6	143.4
Shelter	135.0	135.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	135.0	135.0	135.0
Fuel and Light	157.1	157.0	156.9	156.2	150.4	148.8	150.1	151.1	154.6	155.3	155.4	155.1
Sundries	148.8	148.8	148.8	148.8	148.8	149.0	149.0	149.4	150.4	151.1	151.1	151.1
Combined	121.2	119.8	118.5	118.9	119.7	121.0	124.3	125.7	127.4	128.8	128.7	128.2

APPENDIX II

Fuel Statistics

Table 2. — Anthracite Coal — Total Production, New England Receipts, Imports

(Net Tons)

Years (ending June 30)	United States Production	New England Receipts	New England Imports
1925	63,839,000	8,280,000	224,023
1926	85,454,000	10,612,000	387,458
1927	80,647,000	9,146,000	106,157
1928	76,746,000	9,376,000	369,036
1929	76,888,000	9,040,000	483,979
1930	69,732,000	8,390,000	657,987
1931	59,667,000	7,062,000	610,648
1932	49,855,000	5,639,000	567,397
1933	49,399,000	5,252,000	226,598*

*Imports for January 1 to June 30.

Table 3. — Bituminous Coal — Total Production, New England Receipts, Imports

(Net Tons)

Years (ending June 30)	United States Production	New England Receipts	New England Imports
1925	520,053,000	21,313,000	35,813
1926	578,290,000	21,087,000	62,364
1927	520,684,000	22,426,000	53,096
1928	493,252,000	19,652,000	76,889
1929	526,361,000	21,311,000	50,114
1930	461,879,000	19,901,000	32,385
1931	378,241,000	17,976,000	66,728
1932	309,710,000	15,022,000	53,589
1933	327,940,000	15,984,000	32,431*

*Imports for January 1 to June 30.

Table 4. — New England All-Rail Movement of Coal as shown by Number of Cars of Coal passing East through the Gateways

(Daily Average)

Years	Anthracite				Commercial Bituminous			
	Boston & Maine	Boston & Albany	New York, New Haven & Hartford	Total	Boston & Maine	Boston & Albany	New York, New Haven & Hartford	Total
1925	126	46	167	339	77	61	135	273
1926	168	57	234	459	78	68	148	294
1927	140	50	210	400	74	62	135	271
1928	137	47	245	429	68	49	108	225
1929	134	43	222	399	74	60	121	255
1930	101	47	202	350	62	51	110	223
1931	75	32	177	284	49	40	102	191
1932	77	23	142	242	47	32	84	163
1933	68	21	133	222	51	34	85	170

Table 5. — Deliveries of Domestic-sized Anthracite for Last Eight Coal Years — The Commonwealth of Massachusetts

(Coal Year, April 1 to March 31)

	Net Tons
1925–1926	4,243,872
1926–1927	5,087,360
1927–1928	4,744,324
1928–1929	4,912,810
1929–1930	4,703,019
1930–1931	4,177,238
1931–1932	3,565,768
1932–1933	2,968,429
1933–1934 (8 months)	1,561,170

Population of Massachusetts, 1930 (United States Census), 4,249,614.

Table 6. — Freight Tariffs per Gross Ton and Average Retail Price per Net Ton Delivered on Domestic-sized Anthracite for Certain Representative Municipalities of Massachusetts

City or Town	Delaware & Hudson and Philadelphia & Reading Freight Tariffs	Average Retail Prices December 1, 1933	
		Stove	Pea
Adams	$3.50	$14.00	$12.00
Brockton	4.00	14.25	12.25
Fall River	3.55	14.50	11.50
Fitchburg	4.00	14.50	12.50
Framingham	4.00	14.35	12.25
Gloucester	4.00	14.00	11.75
Greenfield	3.88	14.00	11.75
Haverhill	4.00	13.75	11.00
Holyoke	3.88	14.00	11.50
Lawrence	4.00	15.25	12.75
Leominster	4.00	14.50	12.50
Lowell	4.00	14.75	12.75
Lynn	3.65	14.25	12.00
New Bedford	3.55	13.00	10.75
Newburyport	3.75	13.50	11.00
North Adams	3.50	14.00	12.00
Northampton	3.88	14.00	11.75
Norwood	4.00	14.25	12.15
Peabody	3.65	13.75	11.50
Pittsfield	3.50	14.00	11.25
Salem	3.65	13.75	11.50
Springfield	3.75–3.88	14.25	11.60
Taunton	3.75	14.75	11.50
Westfield	3.75	14.25	11.50
Woburn	3.80	14.00	11.75
Worcester	4.00	14.50	12.15
Boston	3.65–3.80	14.10	12.00
Suburbs	3.65–3.80	14.10	12.00

Freight tariffs from mines to tidewater:
To Port Richmond (Philadelphia) for transshipment to Boston, $2.09. Barge rate, about $1.00.
To Hoboken, N. J. (New York City Harbor) for transshipment to Boston, $2.34. Barge rate, about 75c.

Table 7. — Population, Number of Dealers and their Deliveries of Domestic-sized Anthracite for Certain Representative Municipalities of Massachusetts

City or Town	Population (1930)	Number of Dealers	Deliveries (Net Tons)		
			1932–1933 (Coal Year)	1933–1934 (8 months of Coal Year)	†1933–1934 (8 months of Coal Year) Foreign Anthracite
Boston District*	1,619,616	118	1,228,564	633,419	117,951
Adams	12,697	5	10,743	6,224	0
Brockton	63,797	12	25,784	12,272	2,324
Fall River	115,274	9	49,369	33,418	4,866
Fitchburg	40,692	8	19,940	10,469	652
Gloucester	24,204	5	26,812	13,066	1,431
Greenfield	15,500	5	16,623	8,478	145
Haverhill	48,710	13	44,698	19,784	3,708
Holyoke	56,537	6	41,358	23,522	0
Lawrence	85,068	28	51,066	31,261	8,346
Leominster	21,810	7	15,306	9,126	757
Lowell	100,234	22	48,705	25,246	4,405
Lynn	102,320	9	70,174	27,907	10,330
New Bedford	112,597	9	94,034	57,065	145
Newburyport	15,084	5	31,240	15,168	475
North Adams	21,621	10	17,958	10,163	0
Northampton	24,381	7	32,392	17,996	0
Norwood	15 049	4	14,872	6,825	1,971
Peabody	21,345	7	12,281	4,625	619
Pittsfield	49,677	11	57,463	33,966	0
Salem	43,353	15	46,613	28,294	2,330
Springfield	149,900	17	110,603	60,425	1,066
Taunton	37,355	5	24,866	14,631	676
Westfield	19,775	5	12,923	7,166	102
Woburn	19,434	7	12,315	4,344	509
Worcester	195,311	21	139,314	63,478	1,756
City of Boston	781,188	47	829,550	430,306	83,787
Cambridge	113,643	8	60,317	26,828	661
Chelsea	45,816	6	20,742	9,178	1,803
Everett	48,424	4	27,277	10,913	3,674
Malden	58,036	7	20,160	10,959	987
Medford	59,714	5	13,082	6,882	312
Newton	65,276	5	38,215	23,655	3,219
Quincy	71,983	5	27,477	8,989	801
Somerville	103,908	12	70,202	38,627	12,680
Watertown	34,913	4	19,930	10,559	1,099

*All of above included in Boston District figures together with Arlington, Belmont, Brookline, Melrose, Milton, Revere, Waltham and Winthrop.
†Foreign Anthracite deliveries included in other Anthracite deliveries.

REPORT OF THE MASSACHUSETTS INDUSTRIAL AND DEVELOPMENT COMMISSION

JOHN T. SCULLY, *Executive Secretary*

The third and final report of the Massachusetts Industrial and Development Commission for the period from December 1, 1932, to May 31, 1933, is herewith submitted.

On December 23, 1932, John T. Scully was confirmed for the position of executive secretary, filling the vacancy caused by the resignation of Leon M. Lamb on May 14, 1932. The assistant secretary, M. Joseph McCartin, temporarily assumed the duties of secretary until the appointment of an executive secretary was made. On January 31, 1933, Mr. McCartin resigned his position in order to become the director of state public employment offices.

From the appointment of the new secretary about the end of December, until hearings were held before the committees considering the bill to abolish the commission, much time and effort was consumed outside of the usual routine of office duties in collecting data and distributing information as to the past activities of the commission.

To say the least, the uncertainty as to the tenure of life of the commission did not help to instill enthusiasm for the work to be undertaken by the commission.

As a result of a recommendation of the joint special committee on public expenditures of the general court, this commission was legislated out of existence by chapter 73 of the acts of 1933. This act was signed by the governor on March 14, 1933. Funds were appropriated to permit the commission to function until May 31, 1933.

INDUSTRIAL STUDIES

Many industrial studies of a minor nature have been undertaken from time to time in answer to queries from prospective manufacturers and other interested parties.

A comparison of population trends, net debt and bonded indebtedness of certain Massachusetts communities, the commonwealth and two competing states was made for interests desirous of locating in this state.

A study was made which brought out the fact that very small manufacturing plants possess a very precarious existence under modern industrial conditions. It was shown that nearly sixty per cent of the manufacturing establishments which went out of business in 1931 were small plants employing ten or fewer wage earners.

A study of comparative rates of workmen's compensation insurance coverage in certain trades in all the states where this form of insurance exists was made to determine whether or not the manufacturers in this state were handicapped in competing with other states. Charts were made which presented these data in graphic form, and which were distributed to interested parties for their information.

A brief but comprehensive study of the economic status of the Commonwealth was made for publication in the Boston Sunday Herald of January 8, 1933. This survey showed that Massachusetts was better off than many other states after three years of depression, and that the prevalence of industries here which produce the necessities of life, such as textiles and footwear, would result in a quicker recovery in this state than in certain other states in which the production of luxury products dominates the industrial structure.

The commission has continued its surveys of new manufacturing plants in the state, and has released the information to the newspapers as soon as compiled.

A talk was arranged at which Mr. Carl Buschmann addressed a selected group of manufacturers and exporters on the foreign trade possibilities of the west coast of Africa, together with the steps which Massachusetts interests should take to profit from this fertile and as yet undeveloped market.

The report on the mineral resources of Massachusetts, which was prepared during the preceding year, was widely distributed to responsible parties, and received considerable publicity in newspapers, technical journals and other publications.

Legislative Program

The secretary of the commission supported the bill in the legislature which would allow women to work from six to ten o'clock in the evening.

It was felt that only in this way could the textile industry of this state operate on a double-shift basis when necessary and thus compete on even terms with other states which permit longer work periods.

As a result of complaints made by rubber manufacturers in the state, several letters were sent to the Massachusetts senators and representatives in congress regarding modifications to the tariff laws which would remove the existing handicaps in competition with the foreign manufacture of rubber products.

Direct Mail Campaign

The commission sent three thousand five hundred letters to the mayors in Massachusetts, chairmen of the boards of selectmen of the state, advertising agents, tourist agencies, chambers of commerce, daily and weekly newspapers, magazines throughout the United States and Canada, school superintendents, college bursars and members of the Associated Industries of Massachusetts, enclosing copies of the "Massachusetts folder" and "A Directory of Stopping Places in Massachusetts for Tourists and Vacationists."

The letter suggested that the commission would supply as many additional copies of the pamphlets as requested, provided the inquirer would distribute those pamphlets to out-of-state residents where they would do the most good.

This letter brought requests for 9,352 "Massachusetts folders" and 7,158 copies of "A Directory of Stopping Places in Massachusetts for Tourists and Vacationists." We satisfied the requests for the "Massachusetts folders" and sent 468 "Directories," exhausting our supply, and leaving a balance unfilled of 6,690 "Directories." Many of those commended the movement and agreed to co-operate to bring additional revenue into Massachusetts during 1933.

Week-Ends in Boston

The commission brought together representatives of railroads, steamship lines, hotels, theaters, baseball clubs, sight seeing bus lines, and the Boston chamber of commerce, to develop a plan to bring visitors into Boston for week-ends during the summer of 1933. Five meetings were held in all, attended by approximately forty members at each meeting.

When we realize that one thousand two hundred people are brought into Boston by a Boston & Albany Sunday afternoon excursion, and one thousand eight hundred people taking a Sunday tour of Massachusetts Bay on the Eastern Steamship Line boat, turning away as many as one thousand people, it is not extraordinary to predict that this movement will bring five thousand people a week into Boston, for a period of seventeen weeks at a cost of ten dollars each, making a total revenue of $850,000. One hundred one thousand copies of the "Week-Ends in Boston" leaflet are being distributed by the ticket offices of the transportation lines within two hundred miles of Boston, and all the interests concerned are helping to put over this program.

Radio Broadcasts

Beginning in April and continuing until June, there was delivered a series of radio talks on the advantages of Massachusetts over Stations WBZ, WBZA and W1XAZ. These stations having kindly granted the commission the time and use of their facilities for this purpose.

Following is a list of the speakers and the subjects of their talks arranged by the commission:

Date 1933	*Subject and Speaker*
April 9	Massachusetts — Her Industrial, Agricultural and Recreational Assets: Mr. John T. Scully, Executive Secretary of the Massachusetts Industrial and Development Commission.
April 16	Present Situation at the Port of Boston: Mr. Richard Parkhurst, Vice-Chairman, Boston Port Authority.

April 30 Historical Boston: Mr. Thomas A. Mullen.
May 7 Present Situation in the Shoe and Leather Trade: Mr. Thomas F. Anderson, Secretary, New England Shoe and Leather Association.
May 14 Pertinent Facts on the Textile Industry: Mr. Allyn B. McIntire, Vice-President of the Pepperell Manufacturing Company.
May 21 Massachusetts, An Ideal State for the Home Owner: Mr. James D. Henderson from the firm of Henderson & Ross.
May 28 The World Loves Old Cape Cod: Honorable Donald W. Nicholson, Senator from Cape and Plymouth District.
June 4 Recreational Attractions of Western Massachusetts: Honorable Theodore R. Plunkett, Senator from Berkshire District.

At practically each broadcast, Miss June Sherel gave a short reading which bore a relation to the subject discussed by the guest speaker.

The commission acknowledges its grateful appreciation of the generous co-operation of the distinguished persons who made possible this program of publicity for our state, also the radio stations concerned.

Cape Cod Survey

The commission authorized Professor Richard P. Doherty of the Bureau of Business Research of Boston University to make an economic survey of Cape Cod. Unfortunately, it was impossible to complete and submit this report of the survey before the termination of the activities of the commission.

This report with its facts and recommendations contained therein should be very valuable, particularly to the residents of Cape Cod.

Division of Commercial Fisheries

On November 10, 1932, the commission held a public hearing to listen to statements made by the fishermen, boat owners and fish dealers regarding the conditions existing in the fishing industry and to devise plans to benefit the industry.

In all six meetings were held before the bill was drawn and presented for consideration before the committee on state administration.

As a result of the Governor's visit to the Fish Pier and recommendations in his inaugural address, the bill referred to, Senate No. 366, providing for a "division of commercial fisheries to be created within the department of agriculture" received the approval of the committee on state administration, and was passed by the senate.

While there was some reason advanced to place the division within the department of conservation, all the fishing interests represented at the meetings were satisfied that the matter could be better handled under the department of agriculture. At this writing, the bill is in the house ways and means committee.

One thing, at least, has been accomplished by the commission for the varied fishing interests,—namely, it brought together these interests, several of whom had opposite views and showed a lack of confidence in each other. They were in accord with the main idea that it was very necessary for a state agency to take hold of the fishing industry to save it from demoralization. The commission merely translated the views of the various interests into a definite set-up for the study and control of their problem and the promotion of the business. The necessary legislation will probably pass within a few days to satisfactorily take care of the commercial fisheries problem.

Conclusion

This is the final report of the Massachusetts Industrial and Development Commission, discharged by the legislature in the name of economy.

Promotional work of the character performed by the commission cannot be measured by the immediate financial returns to the state as, for instance, in license fees or permits.

The benefits obtained from this division of state service accrue to the business interests who appreciate the value of the services performed.

At another time it is quite likely, the legislature would have appropriated $100,000 a year to permit the commission to conduct a proper publicity campaign, but at the present time the all-impelling force seems to be economy.

If there is any merit to the newspaper, magazine and radio publicity campaign of the New England Council —

If there is merit to the advertising campaigns of Maine and New Hampshire, and —

If there is to be expected a financial return from the advertising campaigns of the large industries, then that is sufficient reason to believe that Massachusetts would receive a financial return of millions of dollars through an expenditure of $100,000 a year.

In view of the potentialities of the commission, it seems inadvisable to have abolished this board at an annual cost of $18,000 to $20,000 a year that performed a service to the business of the state as this commission has done and would continue to do to a higher degree.

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The Commonwealth of Massachusetts

DEPARTMENT OF LABOR AND INDUSTRIES

OFFICIALS

EDWIN S. SMITH, FRAMINGHAM, COMMISSIONER.
MARY E. MEEHAN, BOSTON, *Assistant Commissioner.*
JOHN L. CAMPOS, FALL RIVER, *Associate Commissioner.*
EDWARD FISHER, LOWELL, *Associate Commissioner.*
HERBERT P. WASGATT, WABAN, *Associate Commissioner.*

HEADS OF DIVISIONS AND BRANCHES

Board of Conciliation and Arbitration:
EDWARD FISHER. JOHN L. CAMPOS. HERBERT P. WASGATT.
Division of Minimum Wage: MARY E. MEEHAN, *Acting Director.*
EDWARD FISHER. JOHN L. CAMPOS. HERBERT P. WASGATT.
Division of Statistics: ROSWELL F. PHELPS, *Director.*
MARGARET SHEA, *Statistician for Manufacturers.*
LESTER E. ARCHIBALD, *Statistician for Labor.*
Division of Industrial Safety: JOHN P. MEADE, *Director.*
JOSEPH MONETTE, *Counsel.*
MANFRED BOWDITCH, *Occupational Hygienist.*
Division of Standards: JOHN P. MCBRIDE, *Director.*
Division of Public Employment Offices:
WALTER H. NEAVES, *Director**, April 1, 1932—October 17, 1932.
ROSWELL F. PHELPS, *Acting Director.*
Division on the Necessaries of Life: RALPH W. ROBART, *Director*
Massachusetts Industrial and Development Commission:
BRADBURY F. CUSHING, *Chairman,* MAX SHOOLMAN, ANDREW RAEBURN, ROBERT J. WATT, PAUL E. FITZPATRICK, *Members Ex-officiis,* EDWIN S. SMITH, *Commissioner of Labor and Industries,* ARTHUR W. GILBERT, *Commissioner of Agriculture.*
M. JOSEPH MCCARTIN, *Assistant Secretary.*

REPORT OF THE COMMISSIONER OF LABOR AND INDUSTRIES

To the General Court:

This preliminary section of the annual report is not intended to be a summary of the reports of all divisions of the Department. In it I have simply selected for comment certain activities which were of particular interest to me or with which as head of the Department I was closely associated. The succeeding reports cover, division by division, the record of the Department's work.

The year 1932 was marked by further deflation of employment and wages in Massachusetts industry. As compared with 1929, employment in manufacturing (for the calendar year) averaged 59.7 per cent and payrolls 42.6 per cent; for 1931, the corresponding figures were 74.2 and 63.5; for 1930, 86.6 and 80.9. Building trades employment was 40 per cent of the 1921 average and payrolls 27.6 per cent. Employment in wholesale and retail trade was 86 per cent of 1930 and payrolls 77.4 per cent; in public utilities the percentages were 81.6 and 73.6, respectively, of 1930.†

* M. Joseph McCartin, *Director of Public Employment Offices,* appointed February 1, 1933.

† For wholesale and retail trade and public utilities comparison is made with 1930 rather than 1929 because of the incompleteness of statistical data for the latter year. All of the percentages cited above are based on returns made by employers to the division of statistics of this department.

In particular lines of manufacturing the decline of wage rates and employe earnings was, of course, more severe. Early in the year the Commissioner's attention was called to the extremely low wages being paid in needle trades establishments in Fall River and New Bedford. These concerns had been attracted from outside the state to our textile cities by the double lure of low rentals and a large supply of unemployed female labor. A special investigation was made by the Minimum Wage Commission of these factories. The figures of weekly earnings may be roughly summarized as follows:

In five shops surveyed in New Bedford in March, coming under the muslin underwear decree of the Minimum Wage Commission, there were 483 girls and women employed. Of these 66.5% earned less than $8 in the week in which payrolls were examined, 82.2% earned less than $10, and 99.6% less than $15. A study of thirteen similar shops in Fall River employing 1616 girls and women, made in February, showed 48.5% earning less than $8, 71.3% less than $10 and 97.1% less than $15.

In a group of three New Bedford factories coming under the muslin underwear decree, the percentages of female workers earning less than 25 cents an hour were 89, 97.6 and 84.6. In one of the three 73.1% of the females employed earned not more than 17 cents an hour. In another factory, now happily defunct, which was studied in March, there were 47 females employed, of whom 25 were earning 10 cents an hour. An hourly wage of 14 cents to seven workers was the highest pay which this concern's payroll revealed.

In five plants in Fall River coming under the men's furnishings decree, whose payrolls were studied in March, the earnings of 56.7% of the workers were less than $8 a week and 78.2% received less than $10 in the week in which the payrolls were studied.

Of the total of 476 girls and women workers in these factories only nine earned $15 or over.

In the men's furnishings factories studied in New Bedford out of fifty piece workers 74% earned less than $9 in a week in March. In the following June 78.6% of the piece workers in the same concerns had weekly rates under $9. In one men's shirt shop studied in June, 26 women and girls had an hourly rate of 10c. or less. In this same shop out of 218 employes only thirty had hourly rates of 25c. or better.

In one Lawrence shop making women's underwear investigation by the Minimum Wage Commission in March disclosed 73% of the employes earning less than $9 a week. In a week in the same month out of 202 women employed in three men's clothing factories, 14.9% earned in the particular week studied less than $6, 31.7% earned less than $8, 49.5% less than $10 and 62.9% less than $12.

It should be pointed out that the above statements of weekly earnings do not necessarily represent a full week's work by the employes whose wages they record. In large part they do represent either a full 48 hours of work or 48 hours spent on the factory premises either working or waiting for work.

Publicity was given by the Commissioner to the wages disclosed by this study in which he stressed not only the injustice of such wages to the individual worker but the harm they would inevitably work to the wage level of the industry as a whole. Unfortunately the minimum wage law was of little avail in these situations. The needle trades employers of Fall River and New Bedford were advertised as failing to pay the minimum wage but it is doubtful that this brought up wages to any extent. The type of employer concerned, in many cases a contractor, not a manufacturer in his own right, had little excuse for his economic being except his ability to cut labor costs by exploiting labor and his willingness to adopt these methods. He was unlikely therefore to be turned aside by so uncertain a weapon as publicity, particularly

when in a time of general unemployment, employment at any terms looks to the less thoughtful part of the public as necessarily good in itself.

A special investigation was made of the safety and sanitary conditions in the Fall River garment factories. Working conditions on the whole were found to be in conformity with the law, although in some instances a tendency of the employer to "drive" the worker was noted. The Commissioner attempted without apparent success to interest the more solid and established business groups in Fall River to take drastic action to bring about a betterment of wage conditions in these wearing apparel plants.

A letter was written by the Commissioner to the heads of department store chains and other chain organizations throughout the country calling their attention to sweatshop conditions in Massachusetts and suggesting that these organizations not patronize such establishments. In reply the presidents of these concerns denounced the low-wage garment shops as socially and economically unsound. Nevertheless they have continued to flourish by the patronage of distributive organizations, including chain stores to a large degree.

The Commissioner and other members of the Department supported the bill introduced by Senator Conroy of Fall River, which would require the labeling of goods made in factories paying less than the minimum wage.

As the depression has progressed, considerable opposition among employers has developed to existing minimum wage decrees adopted at the time a higher cost of living prevailed. I believe that a greater degree of flexibility should be introduced into the minimum wage law and more authority given to the Commission to adjust rates without reconvening of wage boards, or else a plan worked out whereby action by reconvened wage boards can be arrived at more quickly and with less cost. If the latter course is feasible, there are obviously good reasons for retaining the wage board machinery in all rate changes. A bill was introduced by the department this year, by unanimous vote of its members, to give the Minimum Wage Commission authority to adjust rates in accordance with changes in the cost of living. The purpose of this bill was primarily to allow changes to be made promptly in decrees at this time, not merely out of justice to employers, but in the belief that if the decrees were reasonably lowered in accord with changes in living costs that there would be more widespread observance of the new decrees and a probable improvement in the wage situation of the workers coming under the decrees.

The Commissioner has been appointed chairman of a committee of the Association of Governmental Officials in Industry of the United States and Canada to draw up a "model" minimum wage law to be proposed for all states. The only satisfactory type of minimum wage law, is, of course, a mandatory law. My hope is that a satisfactory bill of this sort can be presented to the legislature for action next year. During the year the Minimum Wage Commission greatly increased the number of payroll inspections by its investigators as is recorded in the Commission's report.

Overtime Employment

The deflationary tendency has made itself felt not merely in lower wages but in attempts by certain employers to violate the 48 hour law. The effort to get out goods quickly in order to satisfy an exigent and scanty market has prompted certain less scrupulous employers to work female employes overtime. Sympathetic though one may be with the employer's difficulties in keeping his business afloat in this emergency, it is recognized that the labor laws should be upheld by all employers, otherwise the employer who does not hesitate to break them is prac-

ticing unfair competition against the law-abiding employer. Moreover, by use of shifts the employer has under our 48 hour law opportunity to expand his working capacity in case of rush orders.

Shortly after taking office the Commissioner made arrangements with a prominent industrial engineer, Sanford E. Thompson, of the Thompson & Lichtner Company, whereby Mr. Thompson agreed to offer the free services of his concern to any shoe factory which experienced difficulty in achieving a satisfactory production schedule under the terms of the forty-eight hour law. In other words, the Commissioner believed that the occasional tendency of some of the smaller shoe concerns to break over the 48-hour law was due to bad managerial practices which could be obviated. Wide publicity was given to this offer to assist the employer in obeying the labor laws without cost to himself. It is rather disheartening to note that although violations of the 48 hour law by shoe concerns are still reported only one shoe factory of the more than 300 in Massachusetts took up with the Commissioner's offer.

When the Commissioner first took office he stated in the press his intention to assist strict observance of the labor laws. He recognized that in time of depression the employer eager to get whatever business there is might be less careful in his law observance and the employe, anxious to retain his job at any cost, less likely to report violations of law by the employer. The record of the increase in prosecutions for violation of overtime the first year as shown in the report of the Division of Industrial Safety testifies to the correctness of the assumption that more vigorous enforcement of the law would be required. There will also be found in the report of the same division evidence of the fact that the Commissioner while increasing the number of prosecutions has been disposed to show a reasonable leniency to first offenders whose general record with the department had been satisfactory.

A study was made soon after the Commissioner took office of the disposition by courts of cases of alleged violations of the 48 hour law in the past five years. This survey showed that in a large number of cases when the defendant's guilt was established judges were imposing less than the minimum penalties required by statute. The results of this survey were called to the attention of the public through the press and also to the judges in a letter which is reproduced in the report of the Division of Industrial Safety.

A special letter was sent to chiefs of police throughout the state bespeaking the aid of their patrolmen in uncovering violations of labor laws likely to come under their notice. This letter met with a most generous response. A special summary of the laws whose enforcement the police force was considered to be most useful in assisting was also sent to the police chiefs.

Public Works

A greatly increased state road-building program, undertaken to furnish employment, brought difficulties of enforcement. These arose particularly in reference to veterans' preference and the payment of the prevailing rate of wages to mechanics. From the administrative standpoint a weakness in the preference statute (G.L. 149 Sec. 26) as it applies to veterans is the requirement that they must be qualified to perform the work. The intent of this provision is reasonable but it offers a convenient opportunity for the contractor to evade his obligations under the law. Either to the inspector of the department or to the court he can plead that the particular veteran denied employment was not qualified. This plea has been sustained by many courts.

Whether or not the particular court may decide wisely and on the basis of adequate knowledge of the facts, the procedure of having to prove qualification for employment in the case of a few applicants for employment is not calculated to demonstrate the employer's real attitude toward the

preference law. The case of a single veteran, rightly judged by the court to be not qualified to perform the work he sought, may appear to demonstrate the contractor's intent to abide by the preference law. Frequently such a decision means no such thing. A contractor may continually fail to make any effort to place veterans who are fully qualified to perform his work and yet the only veterans willing to go to court to testify regarding their non-employment may not be qualified. Under these circumstances it would seem that the preference law should be changed to make it clear that if there are qualified veterans and citizens available for the work, failure of the contractor to take steps to employ such persons constitutes an offence. To secure a conviction it would merely be necessary for the superintendent of the public employment office in the district to testify that the office had lists of veterans obviously qualified by past experience to do the work in question, that the contractor had been informed that these men were available for work and that he had disregarded this information and hired non-veteran citizens or aliens. In New York the statute governing preference on public works says that as long as there are citizens available for work it becomes a criminal offence to hire aliens. Prosecution in accordance with the method just described has been successfully brought by the state.

A decision given by the attorney general of Massachusetts limits the rights of veterans to preference on public works jobs to the instances in which there is an existing vacancy. Thus if a non-veteran is hired on a certain day and a qualified veteran who has heard about the vacancy arrives the next day, the contractor is not legally bound to give the veteran the job. This opinion appears to reduce considerably to the veteran the importance of the present preference statute but its application would not in many cases run contrary to what seems sound social policy. For instance, if a non-veteran has been employed, not a day but many years, by a particular contractor, to force the non-veteran to forego that employment to a veteran hardly seems justified. Even before the attorney general's opinion was rendered many veterans' organizations were loath to try to supplant a citizen, who had been employed on a job for a considerable time, by a veteran. Perhaps the wisest solution would be a new statutory provision that if a non-veteran had been hired within so many weeks or months he must forfeit his job to a qualified veteran. A similar statutory provision might be made in regard to the supplanting of an alien by a citizen. Up to the present the department (which has not asked the attorney general for an opinion on this point) has assumed that the law intends that an employed alien should be discharged if a citizen desires the job.

The prevailing rate of wages statute has been troublesome to enforce, because until a formal determination has been made by the department, as provided in Section 27, General Laws 149, there may be considerable room for doubt as to what the prevailing wage is. This is particularly true on road work where the wage rates are less standardized by union-employer agreement than on public buildings. In one case the department secured the conviction in court of a road contractor for failure to pay carpenters the prevailing rate of wages, although there had been no determination of the rate by the department.

A dispute having been formally brought to the attention of the department, determination of the prevailing rate of wage was made for shovel operators and roller operators within a twenty-five mile radius of Boston, namely $55 a week and 90 cents an hour, respectively (November 15, 1932). Determination was also made of the rate for mechanics engaged in stone construction work on certain bridges on the line of the Boston and Worcester turnpike, namely, $1 an hour (December 8, 1932). The Commissioner is of the opinion that the protection afforded by application of the "prevailing rate of wages" principle should be applied to laborers on public works as well as mechanics. He also strongly favors the

predetermination of the wages on highways for both mechanics and laborers. Arguments for predetermination of wages and inclusion of the laborers under the prevailing rate of wages provision will be found in Senate 300, a report prepared by the Commissioner under a resolve of the 1932 legislature.

Keeping road work within the statutory limits on hours of labor also creates administrative difficulties. First of all, there is the "extraordinary emergency" clause, under which a contractor may deem that danger exists to life, safety or property and work his men beyond the normal legal hours. It may be difficult to prove in court that such emergency did not exist, either to life, safety, or property, although the department may be convinced that the "emergency" was merely a subterfuge to increase the working hours. Again the authority given the Commissioner to permit work for more than eight hours a day within the forty-eight hour weekly limit offers opportunity for evasion of the law, as does the permission given by statute to work in excess of eight hours a day (but not forty-eight a week) if a half holiday is given Saturday.

There is need for strengthing the statutory provisions on hours of labor. If nothing else is done, the contractor should be obliged to keep records, in a form approved by the Commissioner, of the hours worked, daily and weekly, by each employe, such records to be available to the inspectors of the department at any time. Again it might well be provided by statute that each contractor engaged in public work should keep conspicuously posted each day the hours of beginning and ending work for all classes of his employes. This would greatly assist the detection of violations of the hours-of-labor provisions.

Inasmuch as the labor laws relating to public works are a part of the contracts made by the Public Works Department the Commissioner sought the cooperation of that department in their enforcement. This cooperation was generously given. A system was instiuted whereby regular reports were submitted by the Public Works engineer on each job giving the name of each employe, his rate of pay, his status as veteran, citizen, etc. These reports bore the names of both departments and a copy was kept by each. On the basis of these reports letters were written by the Chief Engineer, Mr. Arthur W. Dean, of the Public Works Department ordering the discharge of aliens, payment of the prevailing rate of wages, etc. Over a hundred letters were sent by Mr. Dean asking payment of the prevailing rate of wages to shovel operators and roller operators. Even before the prevailing rate for these classes of workers was determined by the Department, the Public Works Department had, after consultation with the Department of Labor and Industries, issued an informal rate which it asked contractors to abide by.

An arrangement was made with the Metropolitan District Commission for its engineers to furnish both the Commission and the Department of Labor and Industries reports similar in character to those furnished by the Department of Public Works.

The decision by the Massachusetts Supreme Court in the O'Connell case (January 6, 1933) that the present prevailing rate of wages statute is unconstitutional has, of course, made more desirable the adoption of the predetermined wage principle which, based on the experience of other states (see Senate 300), offers every prospect of being declared constitutional in this state.

New Division of Public Employment Offices

Prior to this year the state's four public employment offices had been under administration of the Division of Statistics. The Special Commission on the Stabilization of Employment, of which the Commissioner was a member, recommended that a separate Division of Employment Offices should be created. Under the authority given by Chapter 23, Section 3 of the General Laws the Commissioner created such a division and

Mr. Walter H. Neaves was appointed director. Emphasis was laid on soliciting employers to make use of the offices. Much of Mr. Neaves' time was given to visits to road jobs in an effort to place veterans and citizens on this work. The administration of the offices was improved in various ways, particular attention being given to the office for "white collar" workers in Boston. The placements made by this office, made a particularly satisfactory showing in comparison with 1931, despite the depression.

Considerable difficulty developed in connection with a road under construction between Middleborough and Wareham, the contractor having signally failed, in the opinion of Mr. Neaves and the Commissioner, to live up to his statutory obligations to give preference to veterans and citizens. For this reason the Commissioner protested the award of a contract under the Federal Emergency Relief and Construction Act of 1932 to this same contractor. The Governor's Council at first voted to sustain this objection but later reversed its vote. Irrespective of the merits of this particular case the commissioner believes that the Public Works Department, the Governor of the Commonwealth and the Governor's Council should continually give more careful scrutiny to the record of contractors in observing the labor laws before awarding contracts. In this connection there is quoted below a statement by Governor Ely given to the press on September 8, 1933:

> "The drive which Commissioner Smith has been making with the cooperation of Commissioner Lyman, to bring offending road contractors into line has had and will have my full support.
>
> "I have no sympathy for the contractor who seeks to evade his responsibilities under the labor laws. The preference rights of veterans and citizens must be upheld.
>
> "Any contractor who thwarts the efforts of the state department and fails to observe the labor laws of the state and the plain requirements of the Massachusetts state contracts should not be eligible for future contracts."

Mr. Neaves resigned during October to take a position with the newly created Federal Home Loan Bank of Cambridge. After his resignation he was appointed by the Commissioner chairman of an advisory committee to the public employment offices. The other members of this committee were: Mr. Edward Dana, General Manager, Boston Elevated Railway; David F. Edwards, President, Saco-Lowell Shops; Lincoln Filene, Chairman of the Board, Wm. Filene's Sons Company; J. Arthur Moriarty, President, Central Labor Union; A. R. Newhall, President, Hood Rubber Company and E. A. Johnson, President, Massachusetts State Building Trades Council.*

A new director of the Division of Public Employment Offices was not named until after the end of the fiscal year.

Appointment of Occupational Hygienist

For many years organizations interested in the work of the Department had urged the establishment of a Division of Industrial Hygiene. The Commissioner was entirely sympathetic with this proposal and sought legislative sanction to create this division . This was not forthcoming, due principally, no doubt, to the demand for governmental economy during the depression. However, money was received from the legislature to provide for the appointment of an Occupational Hygienist

* In May 1933 Miss Susan J. Ginn, Director of Vocational Guidance, Boston Placement Bureau, School Committee of the City of Boston. and Mrs. [illegible] B. Rantoul of Boston, were added to this committee.

in the Division of Industrial Safety. Mr. Manfred Bowditch was named to this position. During the year Mr. Bowditch has done much fundamental research and initiated many useful and needed activites, an account of which will be found in the special report of the Occupational Hygienist included in the report of the Division of Industrial Safety.

Under the direction of Mr. John P. Meade, director of the Division of Industrial Safety, the regular work of the Department for the prevention of occupational disease has been carried on as usual. In this connection attention is called to the account of a special investigation of the health hazards in the cleansing and dyeing industry described in Mr. Meade's report.

Employment of Children in Agriculture

For years organizations interested in the welfare of children have protected the employment of children under fourteen in agricultural pursuits, particularly in so-called industrialized agriculture. With this point of view the Commissioner is in complete sympathy.

Employment of children under fourteen in the tobacco fields in Connecticut and Massachusetts has been seriously objected to for a number of years. The Commissioner obtained the assent of the Labor Department in Connecticut to a joint investigation of conditions surrounding the labor of children in tobacco plantations in both states. The commissioners from the two states accompanied by other members of the Connecticut Labor Department and Miss Margaret Wiesman, Secretary of the Consumers' League of Massachusetts, made a two day trip to plantations in both states in August. The investigation revealed the employment of a number of children under fourteen. Considerable evidence was found of insanitary and otherwise unsatisfactory working conditions. The problem was discussed with tobacco growers from both states at a meeting in Springfield. A subsequent meeting was held in Hartford (in December 1933) with a number of growers who gave it as their opinion that the growers as a whole in both states would agree voluntarily not to employ children under fourteen. The growers present also agreed that they would be agreeable to a joint investigation of sanitary conditions on the plantations by the two states.

Reports of very low wages being paid to minors employed on the cranberry bogs in Massachusetts prompted Miss Mary E. Meehan, Assistant Commissioner to investigate conditions on a number of these bogs in October, 1932. Miss Meehan was accompanied by an inspector of the Division of Industrial Safety.

Miss Meehan's report revealed a number of instances of children under fourteen, many of them very young, employed on the cranberry bogs illegally. Under the provisions of Section 60 of Chapter 149 of the General Laws these children should have been in school.

Inasmuch as this violation of law had been going on for a number of years and it was then near the end of the cranberry season the Commissioner decided not to prosecute. Miss Meehan also reported filthy conditions in many of the shacks on the bogs in which children were living with their families.

The Associate Commissioners, the Assistant Commissioner, and the Commissioner held a meeting on December 14 with the president of the Cape Cod Cranberry Growers Association and several cranberry growers. It was unanimously agreed by the growers present that the employment of children under fourteen was illegal during the times when school was in session and would be stopped henceforth. They also agreed to discuss and seek action on the following matters at the next annual meeting of the Cape Cod Cranberry Growers Association the first week in May, 1933: (1) the problem of providing drinking water on the bogs under sanitary conditions so that the danger of contagion by use of the common drinking cup or dipper, and of uncovered receptacles in which the water

is now frequently kept, would be minimized, (2) provisions for securing stricter conformity to the law which requires the maintenance of separate toilet facilities for each sex in the screen houses, and the keeping of these toilets in proper condition, (3) provisions to make sure that a medical kit is provided in screen houses in accordance with the provisions of section 141 of chapter 149 of the General Laws, (4) providing medical appliances for use on the bogs, (5) prohibition of the employment of girls under 18 at the task of scooping berries, (6) prohibition of the carrying of filled boxes by women and girls and (7) provisions for insuring that all shacks or houses on the bogs used for dwelling purposes are placed in a livable condition.

Legislation Enacted and Proposed

On recommendation of the Commissioner the following pieces of legislation were passed at the 1932 session:

1. A requirement that the time notices for women and minor workers prescribed by Section 56, Chapter 149, should be *kept posted* in such manner as the Commissioner should prescribe.
2. A requirement that the names of workers engaged on all forms of home work, except wearing apparel, should at the request of the Commissioner be furnished him by the employer, together with the names of all children under eighteen domiciled in the homes of these workers. The purpose of this legislation was to facilitate the inspection of homes where home work was being carried on in order to detect possible illegal employment of women and minors.

The department was asked by the legislature to make a study and recommendations on the proposal to include watchmen and those maintaining fires within the provisions of the one day's rest in seven law. The Commissioner in his report recommended in the affirmative. (See Senate No. 299)

The legislative recommendations by the Commissioner on the prevailing rate of wages has already been referred to. (See Senate No. 300)

Other proposals of legislation were made this year by the department or the Commissioner as follows:—

1. A bill (prepared after careful study by the Assistant Commissioner and the Director of the Division of Industrial Safety) prohibiting the employment of children under sixteen and under eighteen in certain hazardous occupations. (House No. 478)
2. A bill requiring the labeling of all receptacles containing benzol. (House No. 477)
3. A bill extending the provisions of the weekly payment law to practically all classes of employers, including the employers of farm laborers and domestic servants. (House No. 464)
4. A bill requiring that employes in manufacturing and mercantile establishments, with certain exceptions, should not work on legal holidays. (House No. 465)
5. A bill permitting the department to require the installation of adequate devices to remove dangerous fumes in public garages. (House No. 463)
6. A bill providing for the more prompt prosecution of employers who fail to live up to the statutory requirements regarding toilets for employes. (House No. 466)
7. A bill permitting the Minimum Wage Commission to change wage decrees without reconvening wage boards. (Senate No. 403)

Personnel

Major Francis Meredith, Director of the Division of Standards, resigned from the state service on October 31, 1932 after twelve years of

service, having reached the retirement age. Mr. John P. McBride was appointed on November 1, 1932, to fill his position. Mr. McBride had been an inspector in the Division of Standards since April 1, 1919.

Reference has already been made to the appointment of Mr. Walter H. Neaves as Director of the Division of Public Employment Offices and the appointment of Mr. Manfred Bowditch as Occupational Hygienist. Miss Clara Horle was appointed confidential clerk.

Mr. James P. Reagan, inspector of building operations, after thirteen years of service was retired on February 1, 1932, because of disability. His place was filled by Mr. John R. Quilty appointed October 24, 1932.

Mr. William D. Collins, industrial safety inspector since 1919 resigned on December 21, 1932, to accept appointment by Governor Ely as Clerk of the Municipal Court of Boston. His place was filled by appointment of Mr. Walter H. Sullivan on February 13, 1933.

Mr. William C. Hughes was appointed to fill the position of inspector in the Division of Standards left vacant by the appointment of Mr. John P. McBride as director of the division.

Mr. Timothy F. Gorman, Senior Registrar in the Boston public employment office (169 Congress Street), was automatically retired at the age of 70 years on November 26, 1932, after eighteen years of service. For reasons of economy his position was not filled.

The position of Senior Messenger in the Boston public employment offices was abolished at the end of the fiscal year for reasons of economy. This necessitated the retirement of Mr. John Todd who had served in that position since 1926.

Two meetings of the inspectors of the industrial safety division were held in Boston in December, 1931, and in Worcester in November, 1932. The Annual outing of the department was held at the Golf Club in Stowe on October 15.

During the Commissioner's absence on vacation Miss Mary E. Meehan, Assistant Commissioner, was appointed acting commissioner. Miss Meehan was also appointed acting director of the Division of Minimum Wage on February 25, 1932.

Advisory Committee

The Commissioner on May 31, 1932, appointed a General Advisory Committee on the work of the Department. No meeting of this committee has been held but its membership has been consulted on divers problems and acknowledgment is hereby made of the generous response of the individuals appealed to.

The names of those serving on this committee are as follows: Hugh Butler, New England Manager, U. S. Bureau of Foreign and Domestic Commerce, Boston; Francis A. Countway, President, Lever Brothers, Cambridge; Frank P. Cox, Works Manager, West Lynn Plant, General Electric Company, West Lynn; Henry S. Dennison, President and Director, Dennison Manufacturing Company, Framingham; Mrs. Dorothy W. Douglas, Professor of Economics, Smith College, Northampton; W. H. Eaton, President, Eaton Paper Company, Pittsfield; John H. Fahey, Publisher, Worcester Evening Post, Worcester; Robert Fechner, Vice-President, International Association of Machinists, Quincy; Lincoln Filene, Chairman, Board of Directors, Wm. Filene's Sons Company, Boston; Paul E. Fitzpatrick, President, Brown Durrell Company, Boston; A. W. Forbes, J. C. Rhodes & Company, New Bedford; Professor Felix Frankfurter, School of Law, Harvard University, Cambridge; Frank D. Fuller, Vice-President, Moore Drop Forging Company, Springfield; Henry P. Kendall, President and Treasurer, The Kendall Company, Boston; Stanley King, President, Amherst College; William A. Kinsman, President, Towle Manufacturing Company, Newburyport; C. G. McDavitt, Vice-President, New England Telephone and Telegraph Company, Boston; J. Franklin McElwain, President, J. F. McElwain Company, Boston;

Professor Malcolm P. McNair, Harvard Graduate School of Business Administration, Boston; Mrs. Ruth E. O'Keefe, Lynn; Herbert Parsons, Executive Secretary, Massachusetts Child Labor Committee, Boston; Professor William Z. Ripley, Harvard University, Cambridge; Mrs. Arthur G. Rotch, Boston; Dr. Ben M. Selekman, Executive Director, Associated Jewish Philanthropies, Boston; Professor Sumner H. Slichter, Harvard Graduate School of Business Administration; John F. Tinsley, Vice-President and General Manager, Crompton & Knowles Loom Works, Worcester; Sanford E. Thompson, President, Thompson & Lichtner Company, Inc., Boston; S. Wylie Wakeman, Vice-President, Bethlehem Shipbuilding Corporation, Quincy and Robert J. Watt, Secretary-Treasurer, Massachusetts State Branch, American Federation of Labor.

EDWIN S. SMITH,
Commissioner of Labor and Industries.

FINANCIAL STATEMENT FOR 1932

INCOME

Division of Standards	
Collected in fees and paid into the treasury of the commonwealth	$87,188.98
Collected in fees and paid into treasuries of cities, towns and counties of the commonwealth	43,922.00
Penalties for violations of hawkers and pedlars laws	280.00
	$131,390.98

EXPENDITURES

Account	Appropriations	Expenditures	Unexpended Balance
Administration			
Commissioner and associates	$20,500.00	$20,500.00	$ –
Personal services	7,260.00	7,029.03	230.97
Division of Industrial Safety			
Personal services	139,300.00	137,597.32	1,702.68
Expenses	26,039.58	24,453.24	1,586.34
Board of Conciliation and Arbitration			
Personal services	19,100.00	13,365.00	5,735.00
Expenses	4,500.00	2,160.52	2,339.48
Division of Minimum Wages			
Personal services	15,240.00	15,134.00	106.00
Expenses	4,744.33	4,696.52	47.81
Wage boards	560.31	560.31	–
Division of Statistics			
Personal services	53,700.00	53,672.09	27.91
Expenses	15,001.00	14,233.21	767.79
Division of Public Employment Offices			
Personal services	61,650.00	60,446.77	1,203.23
Expenses	12,690.29	11,805.96	884.33
Division of Standards			
Personal services	32,460.00	32,161.13	298.87
Expenses	7,020.05	5,217.51	1,802.54
Massachusetts Industrial and Development Commission			
Personal services	14,500.00	11,031.10	3,468.90
Expenses	3,677.26	2,695.41	981.85
Division on the Necessaries of Life			
Personal services	12,500.00	12,500.00	–
Expenses	2,297.93	2,114.21	183.72
Totals	$452,740.75	$431,373.33	$21,367.42
Recapitulation			
Officials	$20,500.00	20,500.00	–
Personal services	355,710.00	342,936.44	12,773.56
Contingent and travel	75,970.44	67,376.58	8,593.86
Wage boards	560.31	560.31	–
Totals	$452,740.75	$431,373.33	$21,367.42

REPORT OF THE DIVISION OF INDUSTRIAL SAFETY

JOHN P. MEADE, *Director*

INSPECTION WORK

Regular inspection of industrial establishments is the basis for enforcement of the labor laws. The Division of Industrial Safety is authorized to do this work. Its duties include supervising the safety, health and conditions of employment of wage-earners in manufacturing, mechanical, mercantile and other industrial establishments. Among these functions are enforcing the statutes restricting the employment of women and children, securing compliance with the laws and regulations for the safeguarding of hazardous machinery and the protection of employees against processes in industry dangerous to health, providing local and general exhaust ventilation where injurious dusts and fumes arise, and enforcing the statutes requiring compliance with sanitation. These include the enforcement of rules and regulations for suitable toilet and washing facilities; maintaining proper temperature in weaving and spinning departments of textile mills; adequate lighting in places of employment and providing pure drinking water for employees.

The inspection of building operations for the purpose of maintaining safe scaffolding and work platforms and other proper conditions for employees in this dangerous trade and enforcing the laws affecting persons employed in the construction of public works are among other duties of this division.

Complaints of violations of labor laws are investigated and study made of accidents and diseases of occupation to determine means for the prevention of similar occurrences to other employees. Reference in detail is made to these matters herein. Reports are made regularly to the Commissioner, dealing with special problems in industry affecting the well-being of employees and requiring his attention and direction.

SUMMARY OF ACTIVITIES

There was a total of 46,722 inspections and 10,088 reinspections made during th eyear. The following includes the activites of the inspection force for the year ending November 30, 1932:

Inspections

Mercantile, 23,840; mechanical and manufacturing, 17,392; building operations, 3,927; painting operations, 685; road construction, 878; reinspections, 10,088.

Visits

Complaints, 3,552; accidents, 1,185; diseases of occupation, 513; homework in tenement houses, 140; homework licenses issued, 215; painters' certificates of registration issued, 233.

Orders Issued

Labor: Employment of women and minors, 125; posting time notices, 3,398; minors in prohibited trades, 24; procuring and returning certificates, 3,356; one day's rest in seven, 284; public exhibition of children, 2. Total, 7,189.

Health: Ventilation, humidity, dust removal, drinking water and core rooms, 354; lighting and injuries to eyes, 337; toilet and washing facilities, 2,229; meal hours, seats for women and lockers, 82; abolition of common drinking cup and towel, 169; first aid room and medical chest, 1,052. Total, 4,223.

Safety: Communication with engine room, 18; safeguarding machinery, 2,489; free egress, 158; unguarded openings, 57; misc. 10. Total, 2732.

Building Operations: Orders requiring safe staging in the painting business, 199; requiring compliance with safety regulations on buildings, 487. Total, 686.

Construction of Public Works: Prevailing rate and weekly payment of wages, 19; citizens' preference, 243; eight-hour day and forty-eight hour week, 17. Total, 279.

Miscellaneous, 2.

Totals: Orders issued, 15,111; orders complied with, 14,811, which include 5,486 verbal orders complied with at the time of issuance. There were 26 orders cancelled because of firms going of business, while those outstanding on December 1, 1932, totaled, 1,156.

Complaints

Complaints were received at the department as follows: Children employed under fourteen years of age, 13; employed without certificates, 15; children employed in prohibited trades and on dangerous machinery, 5; and in illegal public exhibitions, 13; time notices not posted, 16; women and children employed at time other than stated on printed notice, 5; overtime employment, 30; citizens' preference on employment on public works, 186; veterans' preference in such employment, 104; laborers' vacations, 1; failure to pay prevailing rate of wages on public works, 62; individual's right to lodge or board where he pleases, 1; illegal advertising for help, 8; unguarded machinery, 5; one day's rest in seven, 24; holiday employment, 6; toilet and washing facilities, 54; lighting, 2; ventilation, 24; failure to provide medical chest, 7; rest rooms, lockers, seats, 6; drinking water, 9; various complaints relating to building operations, 66; non-payment of wages, 2,405; illegal homework, 1. Total, 3,585.

Hours of Labor for Women

Inspections were made in 41,232 manufacturing, mechanical and mercantile establishments, and 6,905 orders were issued requiring the posting of time notices, the procuring and returning of certificates prohibiting children from working at dangerous trades and employment of women and minors at time other than stated on the printed notice. In establishments where women were employed in shifts, frequent visits were made to determine that lists of names were maintained correctly and available for inspection. This included personal interviews with employees before the hours of beginning work and at the expiration of each shift, for the purpose of verification. The irregularities discovered were promptly corrected, but in some cases prosecution was necessary. In each district the posting of time notices in a conspicuous place where women were employed was stressed during the year. The modern well-equipped establishment usually presents no difficulty in this connection, but in the small laundries and retail stores the inspector often discovers the notices soiled or torn and frequently unfit for practical use. In these cases an adequate supply of time notices was left with the employer with instructions to change them when necessary and to communicate with the Department if assistance was needed in properly posting them. This arrangement met with much co-operation, and better compliance with the law was secured.

Closely related to the efficient enforcement of laws restricting the employment of women and minors is the night inspection of industrial establishments. Especially is this true of restaurants and lunch rooms where small groups of women are employed. Here they may be permitted to work at any hour of the night or any day of the week if over twenty-one years of age, although subject to the restrictions of not more

than nine hours in one day nor more than forty-eight hours in a week.

Special inquiry was made as to employment of individuals in more than one establishment, and this necessitated checking up the hours of employment in other establishments during the day. These places included dressmaking and garment shops; box making; shoe factories; bakeries; theatres; and in fur, candy, jewelry and other manufacturing establishments.

Hours of work for women in hotels were given careful supervision. Here night work is a difficult problem for the inspector to deal with, for it includes the employment of women in shifts. To determine if compliance with the statutes prevailed in the large hotels, investigations were timed with occasions when large numbers of persons would be attracted because of unusual celebrations and events. Employment managers in these places co-operated with the Department in posting the time notices properly and keeping accurate lists of shifts on file. These were verified through interviewing the employees in kitchens, laundries, dining rooms and linen rooms and securing from each complete information as to the hours worked.

The policy of giving thorough inspection to seashore establishments was carried on during the summer season. These included hotels, laundries, stores, dyeing and cleansing establishments available for the patronage of the summer vacationist, amusement enterprises, novelty stores, etc. The season is short and employees working at these places are anxious to obtain the maximum earnings. Many are unfamiliar with the labor laws, such as women experienced only in private domestic service, and college students who have been hired to do hotel work.

To meet this condition, inspections are made early in the season. This includes the posting of time notices; making known the restrictions on hours of employment for women and minors; laws relating to the procuring and returning of certificates; requirements of the Sunday law and the provisions for one day's rest in seven in certain establishments, and the examination of machinery in laundries and other places. Orders are then issued if the occasion requires it, and inspections are again made at a later date to determine if compliance with the statutes prevails. General co-operation with the law is readily given under these circumstances and the protection guaranteed by statute afforded these employees. During the season court action was taken in a few cases where deliberate violation of law took place in connection with the employment of children.

In July and August this work was also done in many of the inland parks and amusement places in the central and western parts of the State. In restaurant and lunch rooms conducted in these places, time notices were not on file, and the inspector assisted the proprietor in posting them. All of the requirements in relation to the employment of women were explained. These included providing suitable seats for women when not necessarily engaged in the active duties of their employment; proper toilet facilities with adequate privacy; forbidding the employment of girls under twenty-one years of age after 10 o'clock at night at these places and those under sixteen from working after 6 o'clock in the evening.

Child Labor

The employment of children in factories, workshops, manufacturing, mechanical and other industrial establishments was regularly supervised. This was also true in other types of employment at which children may be lawfully occupied. Careful examination was made of certificates on file, and work done by the child was investigated to determine if the provisions of law were complied with. In factories, mills, in manufacturing and mercantile establishments, in laundries, bakeries and woodworking plants this practice was followed regularly by the inspectors. In cases where children were found working in proximity to dangerous machinery, it was made plain to the employer that this was forbidden by statute.

Some of these children were engaged in duties which brought them close to dough-mixing apparatus; circular or band saws; wood shapers; punch presses; wood jointers and unguarded belts, machinery or gearing. Verbal orders under these circumstances were immediately complied with and the employed children afforded legal protection.

Co-operation in this connection is readily given by the well-established concerns of Massachusetts. In these places certificates are secured promptly, as required by the statute, and these are returned within two days after the termination of the child's employment. During the year 346 orders in connection with the certificating of children under sixteen years of age were complied with. Inspections made in these places of employment included checking up the hours worked by children as indicated on the posted notice. The hours of attendance upon continuation school were also verified in order to determine the actual number of hours children could be employed. Regular supervision was maintained in establishments where children were given casual employment. These included chain stores, private bowling alleys, theatres, road side stands, dance halls and similar places. In many of the chain stores the lack of formal delivery system has caused illegal employment of small boys in delivering goods purchased in these places. This often involves carrying heavy parcels up flights of stairs. In uncovering violations of this sort police departments in the large cities cooperated with the inspectors of this Division.

Violations of the laws protecting employed children were reported by school superintendents, attendance officers and other public officials. These were given prompt attention, and prosecution took place in some cases. Instances called to the attention of the division included children who were allowed to work late at night and were unable to do their school work the following day.

Protection of children occupied a prominent place in the inspections made at beach resorts and amusement parks in the summertime. Conditions under which children were employed in these places were closely examined. This resulted in keeping them away from harmful types of employment. Instances were found of children under sixteen years of age working after 6 o'clock in the evening and before 6:30 in the morning. These are busy periods at the seashore resorts, when trade is brisk and sales and deliveries are made. Under these circumstances children were occasionally found employed during prohibited hours in small stores and on motor trucks. Timing their visits with times of probable illegal employment, inspections were made and the statutory requirements enforced. This procedure succeeded in establishing a better understanding of the law among those engaged in business at the summer resorts.

To supervise part-time employment of children in many places, inspections were made in the early hours. Much of this work was done on Saturdays and nights before holidays. In some cases, where the violation of law justified such action, prosecution followed.

Employment of children by milk drivers in the early hours of the morning was investigated by inspectors who worked in groups, covering the urban districts of the State. Much was accomplished by this practice in preventing one of the harmful types of child labor.

The appearance of children in theatrical and dancing exhibitions was given close supervision. This usually concerned child vocalists and performers on musical instruments. The statute forbids the employment or exhibition of such children except as musicians in a church, chapel, school or school exhibition, but allows them to take part in a festival, concert or musical exhibition upon the special written permission of the aldermen or selectmen. Many of these children are well-trained at considerable expense to their parents and often exhibit much talent. They are frequently scheduled for appearance in public places under the direction of booking agencies. These agencies were interviewed at different

times during the year and the wages of the children investigated to determine if it was lawful for them to take part in an exhibition. The law in this connection was made clear on many occasions to municipal authorities. Co-operation generally followed. The coming of theatrical troupes from other states into Massachusetts has presented a difficult problem. Children under fifteen years of age often have a prominent part in the performance and are usually announced in headlines in the daily papers. The usual experience in these cases is that while investigation is being made, the public becomes aroused and complaints are filed with this office. When the law becomes known to the managers of these theatrical troupes, adjustment is quickly made in most instances. Visiting circuses, touring the country and coming into this State each year, bring similar experiences to the Division. Child acrobats and contortionists occasionally are booked for a place in the performance, and may be brought into Massachusetts without knowledge that there is a law preventing such employment in any public place. Owners of these enterprises usually respond quickly to the requirements of the law when its provisions are made known to them.

Overtime Employment

Indicating the co-operation of the public in the administration of the 48-Hour Law, 517 complaints were received alleging overtime employment of women and minors. Investigation was made in each case, and in 134 cases evidence was found justifying the complaint. In shoe and clothing factories, the practice of women reporting late for work and then remaining after the hours designated on the time notice to complete the amount of output required was frequently found to be the basis for complaint. Only in a few cases were large crews of women found working over nine hours in one day. Nearly all such illegal employment was restricted to small numbers of key operators whose output was desired to maintain the volume of plant production.

In first offences of this kind employers were usually given a hearing by the Commissioner, and the terms and purpose of the 48-hour law fully explained. If it appeared that the violation was not particularly flagrant a signed declaration by the offender, promising to comply with the requirements of the law in the future, was taken and filed with the Department in lieu of court action. In this statement the stipulation was made that if a violation of the labor statutes was found in the establishment in the future the present offence would also be brought to the attention of the court. In other cases prosecution for offences against the 48-Hour Law was made. Further reference to this subject will be noted in the report of the legal department.

Seats for Women and Children

In the inspection of industrial establishments, attention was given to the seats furnished women and children as required by law. It is provided in the statute that women and children shall be furnished with suitable seats and permitted to use them while not necessarily engaged in the active duties of their employment. Department stores were inspected frequently during the year to determine if compliance with these requirements existed.

Industrial Safety

During the year 2,485 orders issued by the Department of Labor and Industries with respect to safeguarding machinery were complied with by employers. These include devices to remove set screws on revolving parts, the installation of emergency control devices on each floor or the use of friction clutches, tight or loose pulleys and motor stops, attention to belts and pulleys dangerously adjacent to passageways or the work places of operators, vertical or horizontal transmission shafting, clutches having projections, couplings and collars of a dangerous type, balance and fly wheels without protection and projecting keys in shafting.

Special work of this kind was done on laundry machinery in connection with interlocking devices on extractors, in the safeguarding of calender rolls in paper mills, on embossing machinery in the leather-finishing trade and on stone-crushing machinery in conection with road building plants, in the safe control of motor-driven dough-mixing machinery and meat-grinding devices in mercantile establishments. Careful attention was given to providing safety flanges and hoods for metal-grinding machinery; proper safeguarding of saws, jointers and planers in wood-working establishments; stamping and punch press machinery and shears for cutting steel in the metal trades.

In foundries and metal-working establishments safety work included safeguarding overhead electric cranes with proper chains, cables and cage, also standard system of signaling; protective devices and clothing for employees including goggles and shields for men in plants where metal and mineral particles are struck off on abrasive wheels; rubber gloves and rubber aprons; protection of eyes in the handling of acids.

Safety inspection was carried on in textile mills, shoe factories, tanneries, clothing factories, printing and publishing establishments; foundries and machine shops; wood-working establishments, including the manufacture of furniture, paper plants, slaughter and meat-packing houses; factories devoted to the manufacture of electrical machinery apparatus and supplies; motor vehicles, including bodies and parts; textile machinery, cutlery and edge tools, jewelry, confectionery, soap factories, and other industries, including all branches of the building trades.

Progress was made in the work of safeguarding machinery at the point of operation. From this source arises largely the more serious type of injury to eyes, hands and fingers. The chief inspector, Mr. John R. Dexter, gave special attention to this work.

Co-operation was given by many concerns in providing safeguards of an improved type on hazardous machinery. The gradual reduction in the number of machinery accidents in this State proves this to be constructive work. This is clearly indicated in the following table, although allowance must be made for the greatly decreased exposure hours in 1931.

Machinery Accidents by Manner of Occurrence

	1919	1931
Starting, stopping or operating machine	9,675	3,099
Adjusting machine, tool or work	1,758	458
Hit by flying objects	3,285	521
Cleaning or oiling machines	1,298	329
Breaking of machine, tool or work	620	201
Repairing machine	223	75
All other	1,631	1,555
	18,490	6,238

Some reduction in the severity of industrial injuries generally has also taken place within this period. In 1919, out of a total of 67,240 tabulatable accidents, 1,750, or 2.6, included permanent partial disability injuries. In 1931, there were 50,006 tabulatable injuries, and 1,031, or 2.0, which resulted in permanent partial disability. These included loss of fingers, thumbs, hands, toes, feet, limbs and the sight of eyes. Such accidents usually mean permanent loss of wage-earning capacity. Comparative tables in this connection are given herewith:

Specific Injuries	1919 Number of Cases	Per cent of Total
One finger or thumb lost at or above the first joint	1,109	73.1
Two fingers on one hand	171	11.2
One eye	115	7.6
One hand	60	3.9
One toe	25	1.6
One foot	15	1.0
Two toes	12	.8
Both feet	2	.1
One hand and one finger	2	.1
One hand and one foot	1	.1
Both eyes	1	.1
One finger on one hand, and one on the other	1	.1
One finger on one hand, and two on the other	1	.1
Two arms and two legs	1	.1
One hand and one toe	1	.1
	1,517	100.0

Types of Injuries	1931 Number of Cases	Per cent of Total
One finger or thumb	550	58.7
Two or more fingers, two or more phalanges	114	12.2
One eye	82	8.8
Right or major index finger, two phalanges	63	6.7
Right or major thumb, one phalange	29	3.1
Right or major hand or arm	20	2.1
One toe	18	1.9
Right or major index finger, two phalanges and one or more fingers on same hand	14	1.5
Right or major thumb, two phalanges	13	1.4
Two or more toes	10	1.1
One foot or leg	7	.8
Left or minor hand or arm	3	.3
Right or major thumb, one phalange and right or major finger, two phalanges	3	.3
Right or major thumb, two phalanges and one or more fingers	3	.3
Two or more fingers or thumbs on both hands	3	.3
Right or major thumb, one phalange and one or more fingers	2	.2
Right or major thumb and index finger, two phalanges	1	.1
Both hands	1	.1
Both feet	1	.1
	937	100.0

Attention was given to the employment of children exposed to the risk of injury by dangerous machinery and 24 orders requiring compliance with the law for their protection were issued. In a few establishments children under sixteen years of age were found working on laundry machinery, or in proximity to circular saws or band saws, or on stamping machines used in sheet metal and tinware, or near hazardous machinery or gearing while in motion. In a few cases children under eighteen years of age were found to be employed in the operation of motor vehicles. In all of these instances there was prompt compliance with orders issued forbidding such employment.

Building Operations

In connection with safeguarding work on buildings, 728 orders were complied with, many of which were issued by the inspector on the premises. They included orders relative to scaffolding and working platforms with toe-boards and guard rails; safety devices to complete insulation in the transmission of electric current of high voltage; employees working below staging; protection surrounding hoisting machinery and floor openings; regulation of smoke or fumes, the piping of salamanders so as to convey smoke and gaseous matters to the outside air. Systematic inspection was made of every building where this was possible and timed with the shifting of the working force on the job. Co-operation was maintained with many building contractors who manifested an active interest in protecting their employees against injuries.

Efforts were made by the inspectors to enforce the regulations providing for the safety of men employed in roofing operations. These provide that no work shall be done on a pitched roof unless a suitable staging has been placed in position for the use of workmen employed thereon. Roofing is one of the most hazardous employments in the building trades, and injuries to employees so engaged usually result in extended incapacity for work, with a high percentage of fatality. Repair work, such as mending a leaking roof, involving only a small area, is frequently done without adequate staging. The failure to provide staging in such cases often results in serious injuries to employees.

Difficulty was experienced in dealing with certain sub-contractors of limited means and experience who failed to provide for the safety of their workmen. In those cases where the employers failed to comply promptly with orders issued, prosecution was entered in the courts.

Rigging used in the painting of buildings was inspected. When found to be unsafe contractors were required to make it safe before using it again. The regulations provide that supporting devices be secured to to some stable part of the building or structure and that they be fastened independently by a tie-line if attached to gutters. The proper spacing of falls, preventing the overcrowding of stagings, and furnishing life-line and belts to men employed fifty feet or more above the ground were other provisions of the regulations which were promptly complied with. Interior built-up scaffolding, used in decorating ceilings and walls of churches, theatres and public buildings, in some cases failed to meet the requirements. Ledgers, diagonal and horizontal stays, planks and guard rails were changed by contractors when notified that they must conform with the regulations.

Office buildings, mercantile establishments, lodge rooms and other places where spray painting machinery was used were also inspected. The health regulations for the protection of men so employed require that proper ventilation be provided, also that wet sandpaper be used on lead-painted surfaces; that respirators be furnished and facilities for anointing exposed parts of the body with non-drying oil or cream during spraying operations be available. Serious health hazards in this work arise from the use of benzol, lead and silica. Usually there was prompt compliance with the orders issued, but prosecution was necessary in a few cases.

The building trades industry contributed 6,297 cases, or 12.6 of all industrial accidents for the year ending June 30, 1931; 38 of these were fatal, or 13.5 of all fatal cases. There was one case of total disability, or 20.0 of all such cases; 97 peremanent partial disability injuries, or 29.4 of all cases of this type. These latter included loss of fingers, hand, feet, toes or limbs, or loss of the sight of eyes.

Investigation of Work Injuries Ending November 30, 1932.

During the year there were 797 investigations by inspectors of the more serious industrial accidents. The accidents investigated included 102 fatal injuries, all adults. The injured minors numbered 48. The fatal injuries occurred in the following industries: Light and power, 12; foundry, 11; shoe and leather, 8; food products manufacturing, 8; metal trades, 7; textile, 6; wood-working, 4; mercantile, 4; hotel, 3; chemical, 3; paper, 3; granite, 2; garage, 2; window washing, 2; cold storage plants, 2; trucking, 2; real estate, 2; pyroxylin products, 2; transportation, 2; municipalities, 6; all others, 11. Total 102.

Classified by kinds of injury, they are as follows: Fracture, 19; crushed to death, 15; sprain or strain, 13; laceration, 12; electrocuted, 10; burns, 10; bruises, 8; amputation, 6; internal, 2; overcome by sewer gas, 2; drowned, 1; collapsed, 1; concussion, 1; body found dismembered, 1.

Other general accidents, not including fatalities, occurred in the following industries: Textile, 80; shoe and leather, 78; foundries, 54; metal trades, 41; wood-working, 39; paper, 34; food products manufacturing, 3; light and power, 19; mercantile, 19; rubber, 16; garment manufacturing, 12; laundries, 11; printing, 9; manufacturing toys and games, 8; auto sales and garages, 7; chemical, 6; radios, 5; ice cutting, 4; granite and crushed stone, 3; celluloid and optical goods, 3; all others, 36. Total 517.

Classified by kinds of injury they are as follows: Amputation, 256; abrasions, bruises and contusion, 103; cuts, punctures and lacerations, 63; fractures, 50; burns and scalds, 25; sprains and strains, 15; concussion, 3; internal, 2.

Contact with machinery caused 450 of the 797 accidents. In plants where accidents occurred, 467 had machinery safeguarded and 36 had safety committees. First aid rooms were provided in 297 establishments and medical chests in 260. Others injured were sent to doctor or to hospital.

While investigating accidents, the following orders were issued: Safeguarding machinery, 60; providing medical chests, 6; procuring certificates, 5; against common drinking cup, 1; one day's rest in seven, 1. Total, 73.

Eye Injuries

There were 53 eye injuries investigated during 1932. These included 52 men and 1 woman. Classified by industries, they are as follows: Foundries, 11; shoe and leather, 7; garage, 6; metal trades, 6; construction, 6; textile, 5; chemical, 3; food products making, 2; all others, 7.

By nature of injury: Irritation, 15; loss of vision, 10; foreign body in eye, 10; laceration, 8; burns, 7; bruises, 2; loss of vision, 1.

Typical eye injuries are as follows: In a foundry a man was punching in some fine stock, and a small piece of iron flew and hit him in the eye, causing the loss of that eye.

An employee was repairing a floor with a hatchet and hammer, and a piece of metal broke off the hatchet and flew into his eye, causing loss of vision.

In a shoe factory an operator was adjusting part of his machine with the aid of a screw driver which slipped and deflected upward, striking him in the left eye, causing loss of vision.

In building trade operations, 125 accidents were investigated. Subcontractors, with a group of different mechanics, succeed each other in their special line of work in the erection of a building from the foundation to the finish of the structure. Several of these may be engaged in work at the same time. This condition, peculiar to the building industry, causes an obstacle to effective work for accident prevention in this hazardous trade. It leads to constant change of scaffolding equipment and creates new dangers for workmen. Staging suitable and safe for one crew would be unsuitable and unsafe for other mechanics. Some workmen will not hesitate to work upon unsuitable staging. Under these circumstances difficulty is experienced with contractors of limited means who employ a small group of men. From large, well-established concerns in the building trades, co-opertaion is generally secured.

Non-Machinery Accidents

Systematic attention was given to non-machinery hazards and effective methods used in reducing them. Accidents due to falls of persons and stepping on or striking against objects exceed the number caused by machinery. Accidents having their origin in the handling of objects and tools are more numerous than both groups combined.

Slippery floors contribute largely to the aggregate of these injuries. Inspectors have advised that notices of warning be posted when floors are washed and that non-slip floor covering be used where possible.

Non-machinery accidents can be reduced only through concerted effort of employees and management. Where this practice has been tried, the accident experience of this type was brought to a low point. It is in this work that safety organizations are most productive of good. Stimulating these agencies in plants where inspections were made was the method by which it was sought to reduce non-machinery accidents. Means adopted to this end were recommendations that a careful system be followed in handling and storing raw material; preventing the overcrowding of employees in work places; urging the use of safe practices in processes of manufacturing and constantly exercising due care in the plant.

The examination of the table of total tabulatable injuries by cause of injury and extent of disability which is given here indicates the importance of this work.

Total Tabulatable Injuries by Cause of Injury and Extent of Disability

Cause of Injury	Totals	Deaths	Permanent Total Disabilities	Permanent Partial Disabilities	Temporary Total Disabilities
Handling of objects	15,430	13	–	155	15,262
Falls of persons	8,322	56	2	53	8,211
Machinery	6,238	43	–	607	5,588
Hand tools	4,269	7	–	89	4,173
Vehicles	3,944	73	2	40	3,829
Stepping on or striking against objects	3,665	6	1	9	3,649
Falling objects, not being handled by employee	2,379	14	–	19	2,346
Miscellaneous causes	2,349	11	–	26	2,312
Explosions, electricity, etc.	2,051	44	–	13	1,994
Occupational diseases	1,061	13	–	18	1,030
Animals	298	2	–	2	294
Totals	50,006	282	5	1,031	48,688

This is taken from Table 10 of the Annual Report of the Department of Industrial Accidents for the year ending June 30, 1931.

Injuries to Employed Children

Investigation was made into the serious industrial accidents sustained by children. This included the investigation of all fatal and permanent disabling injuries in the fourteen to eighteen-year old class, reported to the Industrial Accident Department for the year ending June 30, 1931. When serious injury resulted to a child who was illegally employed, prosecution took place. If it was found that certificating requirements were not properly complied with, school superintendents were interviewed. This afforded preventive work of a practical kind for children of this age group. It accomplished much for the restriction of children's employment in safe work places.

Special investigation was made in these cases when it appeared the employment was in proximity to hazardous machinery or in violation of the certificating requirements or other provisions of law.

During the year ending June 30, 1931, 10 children under fourteen years of age were injured in their employment in street trades or other occupations permitted under the statutes. The total number of children between fourteen and eighteen years of age injured was 1,625, or 1,099 less than during the previous year. This was 3.3 per cent of all tabulatable injuries. Classified by ages, these are as follows:

Age	*Number*	*Boys*	*Girls*
14 and under	63	53	10
15	148	123	25
16	540	404	136
17	874	614	260
	1,625	1,194	431

Permanent partial disability injuries in this group are as follows:

Age	*Number*	*Boys*	*Girls*
14	0	0	0
15	5	3	2
16	10	7	3
17	22	16	6
	37	26	11

Fatal Accidents to Children Under Eighteen

There were 6 children, 5 boys and 1 girl, fatally injured during this period. Three (3) of this number, all boys, were under sixteen years of age.

One boy fourteen years of age, employed as a newsboy, while delivering papers, fell through a bulkhead, injuring the base of his spine. This

aggravated or caused heart trouble which resulted in his death.

Another 14-year-old boy was working for a farmer, picking and weeding vegetables. He jumped upon a truck which came in the yard and in reaching up to get a leaf off a tree, he lost his balance and fell, striking his head and fracturing his skull. He died twenty minutes afterward.

A 15-year-old boy, employed in delivering groceries from a truck operated by another, fell from the moving vehicle and sustained injuries to his shoulder and hip, causing his death.

A 16-year-old messenger boy, riding his bicycle, collided with a truck making a right turn into a driveway. His skull was fractured and he received an abrasion of the head and abdomen, resulting in his death.

A 16-year-old girl, employed as a base filler in a lamp factory, tipped over a can of alcohol, spilling some of the contents on her clothing and on her machine. The alcohol soaked through to an electric switch. A spark from the switch ignited, setting her clothing afire. She sustained first, second and third degree burns.

A 17-year-old boy, working on a knotting machine in a coil spring factory, tried to put a belt on the machine while it was in motion. His foot became caught in the machine, pulling him around the shafting and causing his death.

Permanent Partial Injuries to Children Fourteen and Fifteen Years of Age.

No child fourteen years of age or under sustained permanent partial injuries during this period. Five (5) children fifteen years of age, 3 boys and 2 girls, received permanent partial disability injuries. Classified by the industry and by injury, they are as follows:

Industries		*Injuries*	
Shoe manufacturing	3	Loss of one eye	1
Tannery	1	Loss of part of right thumb	1
Paper	1	Loss of one phalange of one finger	2
	5	Loss of one phalange of three fingers	1
			5

Of these cases a 15-year-old boy, employed in the dinking room of a shoe factory, reached for some leather and his hand slipped under the roller, cutting off the distal phalange of the first and second finger and top of third finger of right hand.

Another boy in this group, employed pulling tacks, stuck a tack in his left index finger, which became infected and was amputated at the first joint.

Another 15-year-old boy, employed in the dinking room, had the end of his finger caught under the die, and the tip of his left middle finger was cut off.

A 15-year-old girl, operating a machine in a tannery, glazing pieces of leather, had her right hand pulled into the machine and lost part of her thumb when she tried to pull out a piece of leather on which she was working.

Another 15-year-old girl, employed as a paper sorter, was rolling up some wire taken from the small bales of paper. One end of the wire stuck in her left eye, necessitating its removal.

Permanent Partial Disability Injuries to Children 16 and 17 Years of Age.

Thirty-two children in this group (23 boys and 9 girls) received permanent partial disability injuries.

Classified by Industry

Metal trades	7
Shoe and Leather	5
Paper	4
Grocer	3
Confectionery manufacturing	2
Farmer	2
Toy manufacturing	2
Printing	2
Fisheries	2
Junk dealers	1
Textile	1
Radio tube manufacturing	1
	32

Classified by Injury

Loss of vision of one eye	1
Loss of two or more fingers	5
Loss of left thumb or one finger	19
Loss of use of, or loss of right or major hand or arm	3
Loss of right or major index finger at or above the second joint	3
Loss of one phalange of right thumb	1
	32

Outstanding in the degree of severity in these cases were 6:—

A 17-year-old boy, employed as a framer in a leather goods factory where pocketbooks are made, jammed his left hand in the machine, sustaining multiple lacerations of hand and thumb, causing the loss of normal use of same.

A 16-year-old boy operating a cutter in a box factory, accidentally tripped the machine while his right arm was underneath the knife, cutting it off about six inches below the elbow.

Another boy, employed in a paper box factory, 17 years of age, had his right hand caught in the press, and four fingers and more than half of the palm were cut away.

A 16-year-old boy, employed as a press feeder in a printing shop, caught his hand in the press, and the second and third fingers were amputated at the palm.

A 17-year-old boy, operating a punch press, put his fingers under the die on the press and at the same time put his foot on the pedal, causing traumatic amputation of right third and ring fingers.

A 16-year-old boy, employed as a helper on a grocery truck, was delivering groceries, and the carburetor started flooding. As he pulled up the hood and attempted to fix it, in some way the motor back fired, blowing off the oil cup and gauge, hitting him in the eye, causing loss of vision.

In 17 of the 32 establishments in which injuries occurred to children between fourteen and eighteen years of age, first aid rooms were maintained. In all cases first aid treatment was available for the injured employees as required by the rules and regulations. Medical chests were provided and supplies for treatment accessible to the employees. Records on file indicate that in the plants where the accidents occurred regular inspections had taken place. General compliance with labor laws was the rule in these work places.

Free Egress from Factory Buildings

Only through frequent inspection is it possible to maintain egress as required by statute in old factory buildings. In some of these the building space allotted to small workshops is limited, and supervision is necessary to keep the passageways out of these places safe for the employee. There was a total of 158 orders issued in factories, workshops and manufacturing establishments where doors were locked, bolted or otherwise fastened in violation of the law. Close attention was given to establishments where inflammable compounds or explosives were used and processes carried on that would obstruct or render dangerous the egress of operatives in case of fire. In some of these, materials were stored temporarily in front of the exits, including barrels, boxes, refuse cans and containers which were removed from the place of egress by order of the department. Processes in rubber compounding, dry cleansing, engraving, commercial photography and other lines in which gasoline, benzine, ether, naphtha, turpentine and benzol were used, were given careful attention. The installation of fireproof rooms, closed safety containers, adequate local exhaust equipment and the substitution of less inflammable and

non-explosive compounds were precautions taken in some establishments to control these dangers and to comply with the statutory requirements.

Lighting in Industrial Establishments

Three hundred and thirty-seven orders were issued requiring compliance with the provisions of the Lighting Code. These provided for the protection of employees from glare; proper shading of lamps; better distribution of light and sufficient entrance and exit illumination. Most of these orders were concerned with maintaining the existing lighting system in proper condition. The accumulation of dust and dirt on lamps impaired the system of lighting in many cases. Regular cleaning was applied, which improved the light intensity. It was found in some estalishments that polished surfaces caused eye fatigue and interference with vision. This was overcome by changing the relative location of light sources and the work, which removed the discomfort and annoyance. Proper shading of lamps was a prominent feature in this work. Co-operation was given to concerns in the installation of their lighting system. Inspectors made clear the need for suitable illumination in toilets, passageways, stairways, hallways, elevator cars, washrooms and toilet rooms and other parts of the plant. Advice was given with regard to the height and location of lamps and the use of shades and reflectors as means necessary for a good distribution of light in the workroom. In basements of mercantile establishments the need for proper lighting facilities was stressed. The attitude of employers toward the regulations for lighting is generally one of co-operation, and the Division has been active in giving service in this direction.

Ventilation

Requiring adequate ventilation in factories and workshops made it necessary to issue 340 orders. These were concerned mainly with industrial processes which generated toxic fumes and gases which escaped into the workroom, and were promptly complied with. In garages where danger of discharging carbon monoxide into workshops prevailed, local exhaust equipment to control this exposure at the point of origin was included in most cases. Special apparatus was installed to remove fumes to the outer air. In manufacturing and mechnical establishments careful examination was made of systems for dust and fume removal, and work places in which industrial poisons were used received attention.

Duct openings and shape of hoods were supervised closely and tests made of the ventilation system to determine its efficiency. Some of these were found operating without proper hoods, adequate to envelop the seat of the dust origin, and particles escaped into the workroom. Heated fumes were carried into the atmosphere in the air currents in the workshop because the opening to the hood was too large to provide for their withdrawl through the duct. Hoods used for the collecting of dust were found in some cases to be inadequate and easily blocked up with refuse material. Hoods were frequently detached from the ducts, and in some cases the ducts were broken and failed to function properly. The adjusting of these conditions to conform with the requirements of the law was an important feature of the inspection work during the year. It represents the work done to maintain efficient localized exhaust ventilation as the means of preventing the inhalation of impurities harmful to health. Establishments inspected in this connection included shoe factories, foundries, metal-plating concerns, wood-working establishments and firms engaged in the manufacture of rubber products and the making of asbestos fabric. Stereotype kettles and matrix driers in newspaper and printing establishments were examined regularly. In these places defective exhaust pipes were found in use with gas-heated metal pots. Metal-polishing plants, laundries and hotel kitchens, jewelry factories and other places in which steam and vapor caused uncomfortable conditions in the

workroom were included in this work. Mechanical means used for the removal of dust were examined in the course of inspection in plants operating emery, grinding, polishing and buffing wheels. Sanders in woodworking shops in which lead and arsenic were used in the work process received careful attention. Foundry operations in which smoke, gases or dust figured prominently were included also.

First Aid Treatment

This branch of work included the inspection of rooms in plants, where one hundred or more persons were employed, for the treatment of persons injured or taken ill on the premises and also in checking up the requirements of the law relating to medical or surgical chests. There were 1,052 orders issued by the Department during the year, requiring compliance with these provisions. Good co-operation was received in complying with these orders and the employees were urged to take advantage of the available service for first aid treatment. In some places negligence was evident in the failure to furnish equipment required, such as basins, individual toilets, blankets, suitable chairs and hot water. In some of the first aid rooms interest was stimulated in keeping better records, and the prevention of infected injuries was stressed in the inspection of individual establishments. Injuries of this type continued to be a frequent cause of incapacity and permanent disability. In 1930 there was a total of 5,909 injuries of this type, constituting 9.6% of the total tabulatable injuries.

The experience of the Department of Industrial Accidents shows that for the past three years one out of every ten tabulatable injuries resulted in infection. In 1931 there was a total of 4,738 injuries of this type—16 terminating fatally; 26 were permanent partial disability.

The Department of Industrial Accidents, in its Table 9 for the years ending June 30, 1930 and 1931, presented herewith, indicates the experience with infections ensuing from industrial injuries:

1930

Nature of Injury	Totals	Deaths	Permanent partial Disabilities	Temporary Total Disabilities
Cuts, punctures, lacerations	3,479	25	1	3,453
All other	1,324	1	2	1,321
Abrasions, bruises, contusions	907	5	–	902
Burns and scalds	158	1	–	157
Amputations, loss of use	24	–	24	–
Fractures	9	–	1	8
Sprains and strains	7	1	–	6
Dislocations	1	–	–	1
Totals	5,909	33	28	5,848

Infection by Nature of Injury and Extent of Disability

1931

Cuts, punctures, lacerations	3,123	10	–	3,113
All other	760	2	–	758
Abrasions, bruises, contusions	697	3	1	693
Burns and scalds	121	–	–	121
Amputations, loss of use	25	–	25	–
Fractures	5	1	–	4
Sprains and strains	7	–	–	7
Totals	4,738	14	26	4,696

According to the above table, 4,738 cases of infections ensued from injuries. This is 9.5% of the total tabulatable injuries.

Industrial Health

The exposure of employees to conditions dangerous to health is ascertained through inspection of industrial establishments. Manufacturing or mechanical processes, involving the use of industrial poisons or generating harmful dusts and fumes, are given special attention and the

source of danger controlled as required by law. There were 348 orders complied with during the year which were concerned with ventilation, humidity and the removal of dust and fumes and other impurities harmful to health. In the enforcement of the requirements for suitable toilet and washing facilities, 2,220 orders were complied with. In many instances this included the furnishing of running hot and cold water in establishments where there was exposure to poisonous substances or liquids. Toxic substances in manufacturing establishments are constantly creating new dangers in many work places. During the year plants where these conditions prevail were given frequent inspection and a record made of the industrial poisons used. These included firms engaged in the business of leather finishing; rubber manufacturing; making of rubber products; manufacturing shoes and findings, including wood heels; dyeing and cleansing plants; storage batteries; brake linings; textile fabrics; refrigerators, and in the manufacture of cement. Mechanical exhaust at the point of origin to prevent the inhalation of dusts, fumes and gases; use of suitable containers, respirators, masks and rubber gloves were some of the means required to protect the health of employees.

Reports of patients suffering from diseases of occupation were received from physicians, hospitals and clinics. Each month the information received in this connection was filed with the Department of Public Health as required by Section 11, Chapter 149 of the General Laws.

Occupational Diseases

There were 345 cases of occupational disease investigated during the year. These included 286 men and 59 women. The 345 cases investigated, classified by diseases and industries in which they occurred, are as follows:

Cases of Industrial Illness Investigated During the Year Ending November 30, 1931.

By Disease, Age and Sex.

Disease	Total Cases	15–16 M.	15–16 F.	16–18 M.	16–18 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61–70 M.	61–70 F.	Total M.	Total F.	Fatal M.	Fatal F.
Dermatitis	212	1	6	3	1	9	3	40	22	34	9	49	12	17	2	4	–	157	55	–	–
Gas and fume poisoning	62	–	–	–	–	2	–	10	2	22	1	18	–	6	–	1	–	59	3	1	–
Lead poisoning	26	–	–	–	–	–	–	9	–	10	–	5	–	1	–	1	–	26	–	–	–
Tuberculosis	5	–	–	–	–	–	–	1	–	–	–	3	–	1	–	–	–	5	–	4	–
Silicosis	*7	–	–	–	–	–	–	2	–	–	–	1	–	2	–	1	–	7	–	3	–
Other dust diseases	*20	–	–	–	–	–	–	–	–	3	–	11	–	4	–	1	–	20	–	8	–
Benzol poisoning	4	–	–	–	–	1	–	–	1	2	–	–	–	–	–	–	–	3	1	2	–
Anthrax	2	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	2	–	–	–
All other	7	–	–	–	–	–	–	4	–	1	–	1	–	1	–	–	–	7	–	2	–
Totals	345	1	6	3	1	12	3	66	25	73	10	89	12	32	2	8	–	286	59	20	–

*Age not stated in one case.

Employees covered by the above table work at the following occupations:

Textile Mills: Skein winders; washer tenders; weavers; helpers on printing machines and at dye kettles; wool scourers and can boys.

Shoemaking: Shoe dressers; cementers; heel coverers; treers and ironers.

Tanneries: Beamhouse workers; tanners; finishers; sprayers and wet wheelers.

Rubber: Lasters; calender operators; trimmers and finishers.

Metal Trades: Solderer; dyesetter, packer and machine operator.

The origins of these diseases were traced to the following sources:

Textile Mills: Handling dyed materials and oily rags; cleaning color cans.

Shoemaking: The use of shellac, wood alcohol, ammonia and dyes.

Tanneries: Chrome solutions and dyes.

Rubber: Naphtha, gasoline and varnish.
Metal Trades: Acid and alkali solutions and oils.

To prevent the recurrence of similar diseases of occupation, improvement was made in the exhaust system in many cases. Better ventilation was provided in the workroom in some instances, and suitable washing facilities made available. Hot and cold water, with shower baths, were provided; lockers, medical chests, first aid rooms, respirators, goggles, masks, wooden shoes, rubber aprons, rubber gloves, oil skin sleeves, canvas shoes and aprons, and suitable places for eating food were provided.

Dermatitis

There was a total of 212 cases of Industrial Dermatitis. Comment by industry, age and sex is given herewith in statistical form, for the year ending November 30, 1932.

Dermatitis Cases Investigated During Year Ending November 30, 1932, by Industry, Age and Sex

Industry	Total Cases	15–16 M.	15–16 F.	16–18 M.	16–18 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61– M.	61– F.	Total M.	Total F.	Fatal M.	Fatal F.
Textile manufacturing	50	–	–	–	1	1	1	13	1	9	1	15	–	5	–	3	–	46	4	–	–
Shoe manufacturing	48	1	6	–	–	–	–	10	4	6	3	8	6	3	1	–	–	28	20	–	–
Tanneries	33	–	–	–	–	4	–	4	5	7	–	10	1	2	–	–	–	27	6	–	–
Rubber manufacturing	14	–	–	–	–	–	–	1	5	2	–	3	2	–	1	–	–	6	8	–	–
Steel and wire manufacturing	12	–	–	–	–	1	–	1	2	1	–	4	1	2	–	–	–	9	3	–	–
Food products manufacturing	8	–	–	1	–	–	–	2	3	–	–	1	–	1	–	–	–	5	3	–	–
Chemical manufacturing	6	–	–	–	–	–	–	3	2	1	–	–	–	–	–	–	–	4	2	–	–
Mercantile	5	–	–	–	–	–	1	1	–	1	2	–	–	–	–	–	–	2	3	–	–
Foundries	5	–	–	–	–	–	–	–	–	2	–	2	–	–	–	1	–	5	–	–	–
Painting	4	–	–	–	–	–	–	1	–	1	1	1	–	–	–	–	–	3	1	–	–
Printing	3	–	–	–	–	1	–	1	–	–	–	–	–	1	–	–	–	3	–	–	–
Garment manufacturing	3	–	–	1	–	–	–	–	–	–	1	–	–	1	–	–	–	2	1	–	–
Paper manufacturing	3	–	–	–	–	1	–	–	–	–	1	–	1	–	–	–	–	1	2	–	–
Watch and clock manufacturing	2	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	2	–	–	–
Musical instrument manufacturing	2	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	2	–	–	–
All others	14	–	–	–	–	1	1	3	–	2	–	4	1	2	–	–	–	12	2	–	–
Totals	212	1	6	3	1	9	3	40	22	34	9	49	12	17	2	4	–	157	55	–	–

Employees suffered from dermatitis at the following occupations:
Textile Mills: Weavers; kettle hands; winders and general helpers.
Shoemaking: Treers; cementers; dressers and shoe cutters.
Tanneries: Seasoners; finishers and wet wheelers.
Rubber: Lasters; pressmen; cutters and trimmers.

Some of the miscellaneous industries in which dermatitis was investigated included foundries, printing establishments, hat factories, paper mills and jewelry and furniture factories.

Causes of these cases of disease were found to be the following:
Textile Mills: Handling of wet rags from the dye kettles and of silk that had been treated with sperm oil; also bleaching and dying agents.
Shoemaking: Cleansers and dressings containing shellac, ammonia, naphtha, wood alcohol and dyes.
Tanneries: Use of seasonings containing chrome, shellac, casein, pigments and formaldehyde.
Rubber: Cement; naphtha; talc and whiting.
In other industries, caustics, oils, acid and alkali solutions, lacquer, turpentine and colored inks were causative agents.

Irritant dusts, acids and materials were responsible for these injuries. In each case the investigation included the inspection of the plant, examination of the substances used in the course of employment, the location of washing facilities and the questioning of employees regarding methods of handling materials. Rubber gloves were provided and better

containers made available for the employees in some of the work places visited. The importance of personal hygiene as an important factor in the prevention of dermatitis was stressed to the employer and employee. Washing the hands and forearms frequently with a mild soap and water in employment where irritant substances were used was advised. Men were cautioned not to allow irritants to dry on the skin. Where there was contact in employment with ammonia, naphtha and gasoline operators were advised to wash the hands carefully and apply olive oil or cold cream at the end of the day.

Lead Poisoning

There were 26 cases of lead poisoning investigated during the past year. All were men. None of the cases were fatal. These men were employed as painters and sprayers; on furnaces where metal is tempered; handling old storage batteries; pouring molten lead in moulds and operating linotypes. The table following shows the number of cases by industry, age and sex:

Lead Poisoning Cases Investigated during Year Ending November 30, 1932, by Industry, Age and Sex

Industry	Total Cases	16–18 M.	16–18 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61 M.	61 F.	Total M.	Total F.
Steel and wire mills	7	–	–	–	–	1	–	3	–	2	–	1	–	–	–	7	–
Battery manufacturing	7	–	–	–	–	5	–	2	–	–	–	–	–	–	–	7	–
Smelting and refining	4	–	–	–	–	1	–	1	–	2	–	–	–	–	–	4	–
Ship building	2	–	–	–	–	1	–	1	–	–	–	–	–	–	–	2	–
Printing	2	–	–	–	–	1	–	–	–	1	–	–	–	–	–	2	–
Manufacturing children's vehicles	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–
General contractor	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–
Painting	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–
Florist	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–
Totals	26	–	–	–	–	9	–	10	–	5	–	1	–	1	–	26	–

Gas and Fume Poisoning

There were 62 of these cases investigated: 59 men, 3 women. There was 1 fatal case. In this case the employee was replacing a motor and was overcome by carbon monoxide, dying shortly afterwards. This table includes 13 cases in garages; 12 in textile establishments; 8 in gas and electric light plants; 5 in the manufacture of chemicals and 5 in transportation. Cases by industries, age and sex are shown in the table following:

Cases of Gas and Fume Poisoning Investigated During the Year Ending November 30, 1932, by Industry, Age and Sex

Industry	Total Cases	15–16 M.	15–16 F.	16–18 M.	16–18 F.	18–20 M.	18–20 F.	21–30 M.	21–30 F.	31–40 M.	31–40 F.	41–50 M.	41–50 F.	51–60 M.	51–60 F.	61– M.	61– F.	Total M.	Total F.	Fatal M.	Fatal F.
Garages	13	–	–	–	–	–	–	2	–	6	–	4	–	1	–	–	–	13	–	1	–
Textile	12	–	–	–	–	–	–	1	–	5	–	3	–	2	–	1	–	12	–	–	–
Gas and electric	8	–	–	–	–	1	–	–	–	3	–	4	–	–	–	–	–	8	–	–	–
Transportation	5	–	–	–	–	–	–	–	–	2	–	2	–	1	–	–	–	5	–	–	–
Chemical	5	–	–	–	–	–	–	2	1	1	–	1	–	–	–	–	–	4	1	–	–
Contracting	4	–	–	–	–	–	–	1	–	1	–	2	–	–	–	–	–	4	–	–	–
Shoe manufacturing	3	–	–	–	–	1	–	–	–	1	–	1	–	–	–	–	–	3	–	–	–
Painting	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	2	–	–	–
Food products	2	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	1	1	–	–
All others	8	–	–	–	–	–	–	2	–	2	1	1	–	2	–	–	–	7	1	–	–
Totals	62	–	–	–	–	2	–	10	2	22	1	18	–	6	–	1	–	59	3	1	–

Silicosis

Seven cases of silicosis were investigated during the year. All were men. Three of these were in foundries; 2 in a soap manufacturing establishment; 1 in a plant where brake linings were made and the other at the process of enameling.

Three of these cases were fatal. One of these three was a sandblaster of metal ware. This work was done in an enclosed cabinet connected with exhaust equipment. This system proved inadequate as the workman was still exposed to the danger of inhaling dust. A new method was installed for doing the work, in which steel grit was substituted for sand, and the operator fully protected by wearing an air-flow helmet.

In another case an employee worked in a soap factory where a powder containing a large amount of silica was used in the manufacturing process.

The third was engaged in the manufacturing of brake linings.

In all of these cases effort had been made by the concerns to comply with the statutory requirements for the protection of the health of workmen.

Benzol Poisoning

Four cases of benzol poisoning were investigated; three of these were men, one a woman. Two of the cases were fatal and occurred to men employed in a tannery. These employees were engaged in finishing leather. A thinner or seasoning fluid was used which contained 44% of benzol, amyl alcohol, butyl alcohol and ethyl alcohol. This was mixed with other ingredients, including coloring matter, and applied with a swab to the skins, which were then hung up to dry. The workroom was provided with plenty of windows and ventilating flues going through the roof. The existing ventilating equipment was found to be faulty and inadequate to provide for the removal of fumes. A new and improved ventilating system was installed immediately.

The two other cases occurred in shoe factories, one a boy eighteen years of age employed at cementing heel bases, and the other a woman who worked at a cementing machine through which cement was applied to crepe rubber soles. In both instances benzol was used in the cement. Each employee experienced a severe anaemia.

Anthrax

There were two cases of anthrax investigated during the year. Neither was fatal. Both occurred to employees of tanneries who handled skins that were imported from China and India. In places where these employees worked gloves, armlets and aprons are used and the beamhouses are kept clean and well ventilated.

Pneumoconiosis

There were sixteen cases of this disease investigated; 11 of them in the granite trades; 2 in brake lining factories; 1 each in brick making, stove foundry and a wool warehouse. Seven cases were fatal. Of these, 4 were in the first named industry, and one each in the others. X-ray examinations of employees working in the granite trades revealed extensive pneumoconiosis even when the usual precautions were taken against the inhalation of dust.

In another fatal case an operator doing sandblasting in a cabinet in a stove foundry stood outside of it and directed the blasting operations through slitted openings. Notwithstanding the protection afforded by this process, the employee inhaled dust in the work preparatory to enameling cast iron and sheet iron stoves and ranges.

In a case occurring in the manufacture of brake linings, the employee had been exposed to asbestos dust in the course of his work. This establishment had been given frequent inspection and care exercised to prevent this disease.

Tuberculosis

There were five cases of tuberculosis investigated. Two of these occurred in the granite industry, 1 in a wood heel factory, 1 in the foundry

of an electric company and the other in an electrotyping plant. Four were fatal.

In all of these cases there was careful inspection of the plant, especially with reference to dust-producing causes, and compliance with existing requirements was maintained.

Other Dust Diseases

There were four other dust diseases investigated. All of these were men, 2 of whom worked in the granite trade, 1 for an electric company and 1 in a plant where toys and novelties were made.

Pure Drinking Water

To secure compliance with the requirements on drinking water, twelve orders were issued by the Department during the year. These were nearly all in small workshops and were promptly complied with. Regular inspection was made in plants where the drinking water came from pipes connected with the water supply for fire protection purposes. Careful investigation was made in these places to determine if the health of employees was menaced in this connection. In some instances it was necessary to protect the drinking water from pollution by river water, and an arrangement was made to accomplish this result. The Department of Public Health gave freely of its co-operation, and information was made available to this Division concerning plants in which connection between the drinking water supply and the water supplied for other purposes. Establishments in this connection included leather finishing companies, tanneries, paper mills, bleacheries and dyeworks, woolen and cotton mills.

Home Work

Two hundred and fifteen licenses were granted to make, alter or finish wearing apparel in a room or apartment of a tenement or dwelling house.

Sunday Work and one Day's Rest in Seven

To secure compliance with the statute providing for twenty-four hours' consecutive rest in every seven days, 284 orders were issued by the Department. Some employers had failed to post in a conspicuous place on the premises a schedule containing the list of employers required or allowed to work on Sunday and designating the day of rest for each employee. Others did not keep records of hours worked by employees as required by statute. Most of the concerns were gasoline stations maintained independently from garages, these being held to be mercantile establishments within the scope of the One Day's Rest in Seven Law.

Sanitary Survey of Cleansing and Dyeing Establishments

Fifty-nine cleansing and dyeing establishments were inspected in this investigation, which was confined to plants applying dyeing or cleansing processes to used garments. Employed in such plants were 1,854 adults, of whom 804 were men and 1,050 women. There were also 71 children under eighteen years of age, 46 girls and 24 boys. None of these was under sixteen years of age.

The general conditions of the plants has been classified as follows: Excellent, 18; Good, 19; Fair, 16; Poor, 6.

These establishments are housed usually in structures of stone, brick or other fire-resisting material, constructed according to regulations made by the Department of Public Safety for buildings used in the cleansing and dyeing industry, with special care for the storage and use of flammable liquids, which are stored in tanks located underground, outside of the building. Sparking electrical equipment is excluded, and statis electricity is diminished by properly grounded devices, and solvents are used in closed machines. Natural or mechanical systems of ventilation tend to

keep the air free from flammable vapors. The usual practice is to prohibit smoking, and fire extinguishers are installed at fixed places. Artificial lighting is by electric lamps, and all wiring is run in metal conduits and junction boxes. Lamp sockets are of the keyless type. Switches, cutouts and fuse blocks conform to the electric code dealing with hazardous locations. Boilers are located in detached rooms. Although small quantities of flammable fluids may be kept in the buildings, stored in approved containers, the machines are filled directly from the storage tanks by means of power pumps. Some few concerns occupy buildings of antiquated construction, where these provisions, calculated to keep the workrooms free from poisonous vapors and afford protection against explosion and fire, are indifferently carried out.

A preponderance of women are employed in the large cleansing plants, where they work chiefly as ironers, pressers and "spotters". The latter are skilled in the use of turpentine, sulphonal, lysol, phosphate, zinc oxide, bisulphite of soda, amyl and ethyl acetate, tetrachlorethane, formaldehyde and other chemicals for the removal of stains from wearing apparel, draperies, rugs, bedding, etc. Various soaps and bleaches are used in cleaning rugs and leather clothing; wool, cotton, rayon and silk require separate treatment. A solvent known as varnolene is used in a building set apart from the regular shop, and as a rule but one or two employees work in connection with it. It is a high-test gasoline and a powerful cleansing agent.

Employees are frequently afflicted with sudden colds caused by the rapid changes of temperature which occur between drying rooms and open doors, and the need for good ventilation often operates against keeping the workroom heated adequately. Offensive odors are found where scouring and spotting operations are done in poorly ventilated areas. Dampness and humidity are hazards in this industry which require constant attention. Where carbon tetrachloride is used in brushing and spotting operations, without effective means for the control of the fumes, escaping vapors may affect the health of employees. This is manifested in irritation of the eyes and throat and results in nausea, headache and vomiting. No history was obtainable as to the number of these cases or any record indicating incapacity for work by the employees so affected. In one plant felts were washed in a mixture of carbon tetrachloride, pine oil and liquid soap, from which two cases of acute poisoning resulted. Contact with potash and caustic soda often causes dermatitis. As a rule, chemicals are handled cautiously and carboys of acid are transported from place to place with care for the safety of the employees.

The minors employed usually work at hanging up finished dresses and other wearing apparel and also as shakers and sorters and in carrying material to tables for inspection of the garments and, in a few cases, the pressing of pleats with electric irons.

In the dyeing of used garments, there is excessive humidity from water in vats and tubs. Fumes and vapors produced by chemicals used in the dyeing process frequently cause irritation of the skin and may cause injury to the respiratory organs. In plants found without adequate exhaust fan equipment, correction of these conditions was ordered.

In the black dye bath a solution of aniline, hydrochloride and sodium and potassium bichromate is used, the fluid mixture being kept at the boiling point for thirty minutes. Vegetable, mineral and logwood dyes are occasionally used. Solvents not already mentioned include naptha, ammonia, acetic, oxalic, formic, lactic, nitric, picric and salicylic acid, denatured alcohol, chlorozone, hydrogen peroxide, permanganate of potash and creosote.

Prolonged standing in the hot and humid atmosphere of the dye-house creates a distinct health hazard. Some of the dyers complain of eczema and eruptions on the hands and forearms. Employees in several of the establishments were found affected with skin irritation and dermatitis.

Picric acid caused yellow discoloration of the skin. Inquiries revealed that headache, nausea, dizziness, gastritis, anaemia, rheumatism, arthritis and fallen arches were found to affect the employees.

In both the dyeing and cleansing rooms adequate ventilation is difficult to maintain under the prevailing conditions. Notwithstanding this fact, evidence of communicable diseases was not found to be substantial. Department managers appeared to be trained in the technique of the trades and to realize the importance of careful supervision over men, processes and equipment. Suitable dressing room accommodations were generally provided. Improvement over former years was noted in the safeguarding of machinery. Highly specialized hand-operated ironing presses are now used and equipment control provided, so that the operators' fingers cannot be caught beneath the ironing surfaces.

A total of 93 orders was issued as follows: safeguarding machinery, 27; replenishing medical chests, 19; maintaining toilets, 25; improvement of ventilation, 14; procuring certificates, 4; improving lighting facilities, 2; safeguarding floor openings, 2.

It was ascertained that 59 cases of industrial illness occurred in the year previous to the visits made. They are classified as follows: Dermatitis, 41; carbon tetrachloride poisoning, 14; alcohol poisoning, 2; conjunctivitis, 2. Of interest to this study are the following facts from the Division of Statistics, Department of Labor and Industries:

Establishments in the Dyeing and Cleansing Industry in Massachusetts, census of 1929.

Number of establishments	77
Average number of wage-earners	2,111
Salaried officials	400
Amount of wages paid during the year	$2,692,549
Amount of salaries paid during the year	942,547
Value of product (service)	6,825,603

The attitude of the employers engaged in this business appears to be one of co-operation, and prompt compliance was given to orders issued by the Department for making the workrooms safe for the employee and affording protection against the dangers to health.

Sanitary Survey of Printing Establishments

A recent survey of the printing trade revealed that 563 publications are printed in 175 cities and towns of the State, and that of this number 82 are daily newspapers. The majority of the newspaper plants are now favorably located in modern buildings of substantial brick and wood construction. Printing includes a series of exacting processes, and normal vision and good lighting are essential for typesetting and other mechanical operations. Interiors of crowded shops require more or less constant use of artificial illumination, and walls and ceilings are frequently whitened to increase the light diffusion. Proof reading demands good light standards. Well-shaded lamps are required over cabinets, racks and working areas to furnish suitable lighting facilities. In the set-up of machinery, linotypes are always placed near the windows, as are engraving and finishing tables. Eye strain is lessened by good general and uniform illumination.

The inspection of these plants included careful check-up of the lighting facilities. The ventilating equipment of the stereotyping and electrotyping departments was also scrutinized. The melting of stereotype scrap and burning off of dross or surface film of lead oxide frequently generates much smoke and fumes, and electrotyping, a process in which copper sulphate and sulphuric acid are used, also calls for the removal of fumes and gases.

Safeguarding exposed parts of printing machinery was a dominant

feature of the investigation. This concerned platen presses used in job shops, rotary and cylinder presses for printing magazines, books, folders, catalogues, newspapers and pamphlets, paper-cutting, stripping and stitching machinery, as well as devices for finishing, coloring, gilding and stamping. Finely powdered metal dust was found to be a potential source of lead poisoning, and fragments of scrap metal on the floor around the linotype machines produce a dust hazard. Wet sweeping is practiced to control these dangers.

In photo-engraving, the use of chemicals requires adequate exhaust equipment for the elimination of fumes. In color printing, volatile naptha and xylol are used as solvents. The use of copper, zinc and aluminum powders requires proper fitting hoods and adequate exhaust. To these matters careful attention was given in the course of the inspections, and the devices used were tested.

In some establishments toilets were found unclean and sinks used for washing purposes stained with ink, graphite and chemicals. First aid rooms were provided as required by the department, but trained graduate nurses are employed only in rare instances. Minors under sixteen years of age are not employed as a rule, and only a few apprentices and messengers under eighteen years of age were found. The study indicated that the printing trades have eliminated many employment hazards, and marked improvement is noted in the safe construction of machinery. Nevertheless, cases of hernia are still not infrequent in such work as lifting heavy metal plates and rolls of paper. An outstanding danger to employees in the printing trades is carbon monoxide given off from gas-heated linotype machines not adequately ventilated. The pots used in melting lead are usually and should always be hooded, and the use of a separate room for this purpose is to be recommended.

To summarize, the fumes generated in the printing industry include those arising from the use of lead, tin, antimony, chromic, oxalic, sulphuric and nitric acids, benzol, lacquers, gasoline, kerosene, alcohol, carbon tetrachloride, ammonia, asphalt, creosote, ether, benzine, potassium cyanide and sodium nitrate and hydroxide. Dusts are those of type metals, bronze, lead, brass, copper, aluminum and zinc.

In making this survey, 491 printing establishments were visited. In these, 9,535 persons were employed, 7,239 being males, 2,296 females. Very few children under eighteen years of age were employed. In classifying the establishments it was determined that 225 were in modern buildings and 266 in old buildings. General conditions as to cleanliness were found to be as follows: Clean, 351; Fairly clean, 67; Dirty, 73.

A total of 385 orders were issued, as follows: Safeguarding dangerous machinery, 158, medical chests, 125; proper toilets and washing facilities, 59; ventilation of workrooms, 14; certificates for minors, 14; improving lighting facilities, 12; abolishing common towel and drinking cup, 3.

The survey indicates that the printing industry in general appreciates the value of sanitary conditions and maintaining safe work places for the employees. The medical inspectors who conducted these surveys—Dr. Walter D. Riordan and Dr. Francis V. Murphy—report that good co-operation was readily given to their suggestions, and prompt compliance rendered on orders issued by the Department.

Information in regard to research activities by the Department leading to the prevention of industrial diseases will be found in the report of the Occupational Hygienist at the end of the report of this Division.

Co-Ordinating Existing Agencies for Law Enforcement

To promote a better knowledge and understanding of the Labor Laws and to secure the co-operation of employer and employee in maintaining compliance with the statutes, the Division was active in promoting the policies of the Commissioner, who, earlier in the year, communicated with the heads of the police department in all of the cities and the industrial

towns of the Commonwealth, calling attention to the need for work of this kind. To these officials the following letter was addressed:

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF LABOR AND INDUSTRIES

State House, Boston,
April 5 to 9, 1932.

Dear Sir:

Co-operation between State departments and local authorities should prove effective in the enforcement of law. There is much to be gained in this connection through such an arrangement between the Departments of Labor and Industries and the local police groups in the various communities.

The patrolman covering the beat in the early hours of the morning may become cognizant of the illegal employment of a child by the driver of a milk truck in making deliveries to his customers. The police officer working at night may see boys under age illegally employed in bowling alleys, working in theatres, in clubs, at dances and taking part unlawfully in public exhibitions.

The operation of an industrial plant on Sunday without permit from the local Chief of Police or provision made to comply with the One Day's Rest in Seven Law may come squarely to his notice in the course of his duties, as also may violations of the 48-Hour Law for women, especially those working on the night shifts in restaurants, hotels and lunch rooms. Reporting such information to this Department would do much to provide for better enforcement of the law.

Improvement can be made possible through joint action of this kind in securing compliance with the laws designed to protect the health and well-being of employees.

If this plan appeals to you, the Department would be glad to receive this assurance. Bulletins containing the legal requirements in connection with the labor laws will be furnished upon request, and correspondence regarding these matters should be addressed to the Department of Labor and Industries, 473 State House, Boston, Mass.

Please understand your co-operation would be appreciated.

Very truly yours,
(Signed) Edwin S. Smith, Commissioner.

Together with this appeal there went a digest of some of the more important labor laws in which co-operation between the police and authorities and the Department of Labor and Industries would be of advantage. The response to this effort to stimulate co-operation was encouraging and assurance was given to the Department that the police service in the cities and towns would assist in this purpose. Inspectors of the Division have received valuable assistance from the police, particularly in regard to information on overtime employment of women and violation of the One Day's Rest in Seven Law.

A shop bulletin was prepared by the Department directing attention to the law relating to the hours of labor for women and children, the maintaining of proper sanitation and the prevention of accidents and diseases arising out of and in the course of employment. Through this medium important requirements of the law were brought directly to the attention of employer and workman in large numbers of establishments throughout the Commonwealth.

An inspector of the Division posted this notice in 1,435 manufacturing and mechanical establishments in a conspicuous place in the workroom. A copy of this poster is reproduced below.

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF LABOR AND INDUSTRIES

Some Basic Requirements of the Labor Laws for the Guidance of Employers and Employees

Hours of Labor for Women and Children: Women and children above sixteen years of age employed in laboring may not work more than nine hours in one day, nor more than forty-eight hours in a week, subject to the provisions of Section 56, Chapter 149 of the General Laws. A printed notice shall be posted in a conspicuous place in every room where such persons are employed, stating the number of hours' work required on each day of the week and the hours of beginning and stopping work and the hours when the time allowed for meals begins and ends. The employment of any such person at a time other than as stated in said printed notice, unless authorized by law, constitutes a violation of the statute. Children between fourteen and sixteen years of age may work not more than eight hours in one day, nor more than forty-eight hours in a week, nor more than six days a week, nor after six o'clock in the evening, nor before half past six o'clock in the morning. The time spent by such child in a continuation school shall be reckoned as a part of the time he is permitted to work. Employment certificates for children between fourteen and sixteen and educational certificates for minors between sixteen and twenty-one must be on file in the place of employment and returned to the office from which they were issued within two days after the date of the termination of their employment.

Prevention of Work Injuries: Collective action by employer and workman is necessary to prevent physicial pain and human waste. The work place should be safely maintained by the employer, and the employee should exercise due care in the course of his employment. Goggles, respirators or other protective devices furnished by the employer should be used by the workmen.

First Aid Facilities: The purpose of medical or surgical chests and first aid rooms is to render treatment to persons injured or taken ill upon the premises. The law requires that this service be available to employees, yet one out of every ten tabulatable accidents arising out of and in the course of employment in this Commonwealth is an infection resulting from an injury. In 1931 there were 4,738 injuries of this type, 16 resulting in death and 26 in permanent partial disability. Employees should report for PROMPT TREATMENT OF CUTS, BURNS, LACERATIONS, PUNCTURES AND BRUISES, thus co-operating with the Department of Labor and Industries in its effort to reduce injuries of this character.

Dermatitis: In occupations where rubber gloves may be provided to handle poisonous materials, and lanolin or vaseline is furnished to workmen to prevent irritants from entering the pores of the skin, employees should co-operate in their use. Medical authorities advise employees, working at processes in which irritant substances are used to wash their hands and forearms frequently with mild soap and water. Workmen are cautioned not to allow irritants to dry on the skin. Failure to follow this advice has resulted in many cases of dermatitis, the leading occupational disease in this State.

Maintenance of Toilets: Regular and thorough cleansing must be maintained by the employer. The employee who fails to co-operate in keeping the place clean may impose on his fellow workmen. Separate toilets must be provided for each sex. No employee or person is allowed to use a closet or privy which is designated for the use of persons of the other sex. The statutes require that whoever willfully destroys, defaces, injures or defiles any toilet appliance provided in any place of employment shall be punished by a fine of not more than $50.

Washing Facilities: All washing facilities or appliances and the floors in and around same shall be kept clean, and regular and thorough cleansing shall be practiced. Where there is undue exposure to poisonous substances or liquids, or where the work is especially dirty, clean running hot and cold water shall be provided. Employees should co-operate with the management in keeping these facilities fit for use.

Weekly Payment Law: Wages earned must be paid weekly to within six days of the date of said payment if employed for six days in a week, or to within seven days of the date of said payment if employed seven days in a week. Employees who are discharged must be paid in full on the day of their discharge, but any employee leaving his employment shall be paid in full on the following pay day. Persons carrying on a manufacturing business, employing one hundred or more, shall on the day chosen as pay day pay the employees before the close of the regular working hours.

INFORMATION AS TO THE STATUTORY PROVISIONS CONCERNING THE LABOR LAWS AND THE RULES AND REGULATIONS MADE FOR THE PROTECTION OF EMPLOYEES MAY BE SECURED UPON APPLICATION TO THE DEPARTMENT OF LABOR AND INDUSTRIES, 473 STATE HOUSE, BOSTON.

EDWIN S. SMITH,
Commissioner.

A study under the direction of the Commissioner, of the relation of the courts to the 48-Hour Law, revealed great variation in the severity of penalties imposed. In co-ordinating the forces for a sound administration of labor laws, an appeal was made for the united support of the courts. In the annual bulletin issued by the administrative committee of the district courts and addressed to the justices, special justices, clerks and probation officers of the General Courts, the following appeal was made by the Commissioner on July 1, 1932:—

"The Relationship of the Massachusetts Courts to the Forty-Eight Hour Law.

Edwin S. Smith

Commissioner of Labor and Industries

"So firm is the legal and social foundation of the Massachusetts laws restricting the hours of women employed in laboring that one would expect a corresponding firmness to be displayed by the judiciary in enforcing the penalties of the statute. When the writer recently assumed the office of chief administrator of the Commonwealth's labor laws he discovered that this very natural hypothesis was incorrect. Recent history indicated that the judicial attitude toward evasion of the Forty-eight Hour Law for women and minors was tolerant to a degree that prompted me to make a public statement that the judges evidently did not take this law seriously.

The basis of this statement was an examination of cases prosecuted under the statute which requires that no child under eighteen and no woman shall be employed in laboring for more than nine hours in one day or more than forty-eight hours in a week. The facts I found were these: Except for a few cases dismissed and those found 'not guilty' there were seventy-seven court convictions in the period from December 16, 1926 to January 8, 1932, inclusive. The number of convictions, however, is a small part of the story. The statute governing the offence of work by women and boys between sixteen and eighteen in excess of forty-eight hours provide specifically that any one employing a person under such circumstances shall be punished by a fine of not less than fifty nor more than one hundred dollars. (G. L. Chapter 149, Sec. 57). In the seventy-seven cases examined, thirty were placed on file. In clear contravention of the statutory provisions, fines of $25 were imposed

in six cases; $15, two cases; $10, twenty-four cases; and $5, in one case. The minimum statutory fine of $50, was actually imposed in only fourteen cases, or 18% of the total.

Sometimes the employment of women in laboring in excess of forty-eight hours in the week or nine hours in any one day can be definitely proved by witness of the women themselves. At other times a presumption of such overtime work exists when women are employed at a time other than stated on the printed time notice which is required by statute, whether this be before the time set for beginning work, or after or during the assigned meal time indicated in the notice. The law, therefore, makes employment at a time other than stated on the printed notice a violation of the statute carrying the same penalty as for overtime work.

Employees will not readily bear witness against the employer to whom they owe continuance on their jobs. For this reason many times the only evidence which the Department of Labor and Industries can adduce of overtime work is the fact that an inspector discovered women or children under eighteen at work at a time other than was stated on the printed notice. The working hours for women entered by the employer on his time notice constitute his pledge for observance of the labor law. Employment of women at other times is held by the Department and by the statute to be *ipso facto* evidence of employment in violation of the law.

The Department may prosecute employers directly for overtime employment when it believes this can be proved by witness or it may prosecute for employment at times other than stated in the printed notice. Since my investigation of prosecutions on the charge of overtime employment, I have inspected the results of prosecutions for employment at time other than stated on the printed notice. In the period from December 16, 1926, to February 4, 1932, there were one hundred and seventy prosecutions for employing women and minors at time other than stated on the time notice. Of those found guilty, sixty were placed on file and fines were imposed in ninety-eight cases. The minimum statutory penalty of $50 was imposed in sixty-four cases. Other fines imposed were $25, eight cases; $20, two cases; $15, two cases; $10, sixteen cases; $5, two cases.

It is curious to note that on the charge of employment at a time other than stated on the printed notice, by which work in excess of the allowed hours may be only technically indicated the statutory fine should have been imposed in a far larger proportion of the cases than when prosecution is for overtime that has been definitely proved. I propose no answer to this riddle. Both on overtime and time other than stated charges, the almost universal practice of judges as revealed by these two statutes is to impose a fine only on the first of the several counts which may be brought and to file the others.

So much for the facts. What, then, is the probable determining consideration in the minds of the district judges which prompts these numerous "filings" and less than the maximum sentences for overtime work? Presumably the answer is not a lack of sympathy for the humanitarian motive underlying the statute. Massachusetts has been continuously indoctrinated with the value of legislation to protect women and child workers. The first law on the American continent restricting the hours of labor of children was enacted in Massachusetts in 1842 and the first law restricting the hours of labor of women was passed in Massachusetts in 1874. The original limitation on women's labor was a ten-hour day in factory employment (with exceptions). The present forty-eight hours a week, nine hours a day statute was passed in 1919, and amended in 1921.

The United States Supreme Court in upholding in 1908 the constitutionality of the Oregon 10-Hour Law, gave succint expression to the justification for legislature of this type. It stated:

'As healthy mothers are essential to vigorous offspring, the physical well-being of women becomes an object of public interest and care in order to preserve the strength and vigor of the race. The limitation which this statute imposed upon the contracting powers, upon her right to agree with her employer as to the time when she shall labor, are not imposed solely for her benefit, but also for the benefit for all.'

As for a Massachusetts judicial opinion from a high source we may note the remarks of Chief Justice Arthur P. Rugg of the Massachusetts Supreme Court in his address to the Legislature on the occasion of the tercentenary celebration on October 20, 1930:

'Laws to insure healthful conditions of labor, such as inspection of factories, requirements for adequate light and air and protected machinery for those who labor, have been numerous covering a considerable period. Laws regulating labor by children and women have been passed. They have accomplished a vast improvement in the general welfare of the community. Beginning with a law in 1836 prohibiting the employment of children under fifteen years of age in manufacturing establishments without specified school attendance, there followed in 1842 statutory regulation of hours of labor by children. These have been supplemented and extended by many subsequent enactments designed to promote health sanitation, comfort and civilization among those women and children who work.'

Does the antipathy by Massachusetts judges toward imposing the statutory sentence for overtime work for women spring from a belief that the statute is economically harmful? With the exception of the cotton texile industry, whose substantial migrations from Massachusetts has been prompted undoubtedly in part by the longer hours worked in the South, I doubt if any large body of opinion in a Massachusetts industry would claim that the the 48-hour limit of work for women constituted an economic oppression. It is significant that in none of the prosecutions which I have examined and which have been summarized in the present article was the defendant a manufacturer of cotton textile goods.

The shoe industry is frequently represented in the prosecution for overtime work. This is due to the seasonal character of the industry and the temptation which certain manufacturers are undoubtedly under to exceed the legal working hours in the rush season. The manufacture of shoes is complicated by the fact that the timing of all the elements of production so that the work passes without delay from one process to the next constitutes, particularly in busy seasons, a difficult problem of managerial control. Lacking such careful planning and control, work in one department may get ahead of that in another. In the effort to complete orders promptly, particularly under modern conditions of hand-to-mouth buying, the management may be tempted to permit or encourage overtime work by women in certain departments in order to catch up with the work which has already been processed in other departments and is awaiting completion.

This situation by no means constitutes an unsolvable managerial problem even at the busy times of the year. In the larger and more efficiently managed factories a solution can be found along one or more of the following lines:

(1) More careful planning of the work to achieve an even flow from one department to the next.
(2) The employment of more persons in the departments which are likely to lag.
(3) The training of a certain number of employees to perform more than one kind of job so that they may be shifted from the departments which are exceeding their scheduled task to those that are temporarily falling behind.

In a recent instance of a shoe concern that had violated the overtime law for women, the judge persuaded the employer to install machines which provided additional work for thirteen persons. This is a happy type of solution for the forty-eight hour problem in a time of unemployment such as at the present, and one which I believe judges might well urge on offenders.

The real reluctance of judges to impose the statutory sentence in overtime cases, I believe, is due to the fact that usually only from two to eight or ten employees are involved. When the number of employees who have been working overtime represents a small percentage of the women employed by the company, a judge may regard the offence as technical rather than serious. When this attitude exists, it fails to take account of the real significance of the forty-eight hour law problem. Few manufacturers are likely to be reckless enough to work their whole force of women overtime in deliberate violation of the statute. The risk is too great. Moreover, the temptation to allow overtime work does not present itself in this wholesale manner. A much more likely occurrence is to permit a few women to work illegally for the sake of "catching up" in one or more departments.

When the amount of overtime work discovered is not more than fifteen minutes or half an hour, this may seem to the judge inconsequential. It is the responsibility of the Department to point out in such cases that the amount of overtime called to the attention of the court represents the time worked before the inspector detected the violation. How much more there might have been if the inspector had not appeared is problematical.

The fact that in a particular case relatively few people may be involved for a relatively small amount of excess time should not in my opinion deter the judiciary from taking the full statutory action provided for. Failure to discourage minor lapses from the law is bound to promote major lapses.

The overtime discovered by the inspectors, who are after all very limited in number, forty to the entire State, probably represents only a fraction of the actual violations. Vigorous action, therefore, by the judges, against offenders who may happen to be brought before them is one of the most potent ways to keep down the total offences. The judiciary is a vital link in the enforcement procedure. If they fail to approach the problem of violation of the Forty-eight Hour Law with the same zealous attitude as the inspection force is required to display, the successful administration of the statute suffers deterioration."

In this connection the inspectors of the Division have been trained to prepare their cases upon the basis of good judgment and sound evidence to assist the court in curbing the unsocial attitude of a comparatively small group of employers in the State whose practices constitute a menace to legitimate industry. The response to these appeals indicated a spirit of co-operation and support in maintaining greater respect for the purposes underlying the labor laws.

Public Works

During the summer and fall seasons regular inspection was given to the construction of public works. This included the construction of walls

and bridges, the building of roadways, the erection of schoolhouses, county buildings and additions to State institutions. The total appropriations of the Department of Public Works for this purpose in 1932 was $27,568,189.45, and records on file indicate that it awarded 375 contracts in this connection. In the Metropolitan District Commission and the Department of Mental Diseases nearly $11,000,000 was paid out for public works projects. It is estimated that practically 37% of this amount was paid in wages to employees.

The law regulating employment on such public works required the contractor to give preference to citizens for work in the following order:

1. To citizens of the Commonwealth who are qualified to perform the work to which the employment relates and who have served in the Army or Navy of the United States in time of war and have been honorably discharged therefrom or released from active duty therein.
2. To citizens of the Commonwealth generally.
3. If these cannot be obtained in sufficient numbers, preference shall be given to citizens of the United States.

The condition of unemployment throughout the State resulted in unprecedented demand for work and this led to protests alleging failure not only to comply with the law relating to veterans' and citizens' preference in employment upon the construction of public works, but also failure to pay the prevailing rate of wages and to conform to the legal limits on working hours.

For the purpose of enforcing the statutes in this connection, the Commissioner established a system of co-operation with the Department of Public Works, calculated to check up the practice of each contractor in complying with their agreements. This was done by the resident engineers on the project submitting a labor report, giving the hours worked and the names, occupations, status as to citizenship and rates of wages of all employees on the job. If violation appeared as to the hours of labor, the prevailing rate of wages to mechanics or the employment of aliens contrary to the requirements of the statute, these were immediately singled out for remedial action both by the Department of Public Works and this Department. Through this system compliance with the law was assisted and rates of wages for mechanics were adjusted more quickly. The Public Employment System of the Department of Labor and Industries utilized this information and was able to render improved service in placing unemployed laborers and mechanics at work.

There was a total of 878 inspections of road construction work and a total of 279 orders issued to contractors engaged in this work. These included:

Citizens' preference	243	48-hour week	17
Prevailing rate of wages	16	Weekly payment of wages	3
			279

Complaints against contractors were more numerous than in former years. There were 384 of them specifically as follows:

Overtime employment	30	Laborers' vacation	1
Citizens' preference	186	Prevailing rate of wages	62
Veterans' preference	104	Right to lodge or board	1
			384

In some of these highway projects the national government supplemented the state's appropriation, and in such cases the requirements of the Massachusetts statute is in certain instances superseded by the fed-

eral law. The contractor is required under these circumstances to give preference in employment to "honorably discharged soldiers, sailors and marines", but no other preference or discrimination among citizens of the United States is permitted to be made. (See Section 6, Act of Congress approved February 28, 1919, entitled "An Act Making Appropriations for the Service of the Post Office Department for the Fiscal Year Ending June 30, 1920 and for Other Practices." Public 299—65th Congress.)

On the federal-aided projects, citizens of Massachusetts who have served in the Army or Navy of the United States and are qualified to meet the requirements of the Massachusetts statute are not given first preference on such work, but share this privilege with veterans who are citizens of the United States generally. There was expended in Massachusetts for this work during the year the sum of $2,925,000.

Public Work in Massachusetts Under the Emergency Relief and Construction Act

For the purpose of providing for emergency construction of certain authorized public works with a view to increasing employment, the Congress of the United States appropriated the sum of $322,224,000, of which sum $120,000,000 was allocated for emergency construction work on the Federal Aid Highway system. (See Emergency Relief and Construction Act of 1932—Public No. 302, 72d Congress—H.R. 9642). In putting into effect this federal law, the sum of $1,716,612 was apportioned to Massachusetts, but was not wholly expended because the work would not be completed until 1933.

In the road building contracts issued under the Emergency Relief and Construction Act the Department was confronted with difficulties which interfered with the enforcement of Massachusetts law. On these operations there was much dissatisfaction in several communities with the wages paid by the contractors as a result of their interpretation of rates fixed by the Department of Public Works pursuant to regulations established by the Secretary of Agriculture for carrying out the provisions of this emergency act. The Emergency Relief and Construction Act restricted the hours of labor on projects constructed under its provisions to thirty a week. There was protest by organized labor against the permission given that workmen might be employed three days a week for ten hours a day. This was deemed to be contrary to the requirements of the Massachusetts eight-hour law for laborers, workmen and mechanics engaged upon public work.

As the result of complaints filed with the department on wage conditions and other matters connected with these federal emergency jobs the Commissioner requested from the Attorney-General an opinion as to his authority to enforce the Massachusetts labor laws on contract projects financed by the Federal Government, as follows:

September 30, 1932.

Honorable Joseph E. Warner,
Attorney-General of the Commonwealth,
State House, Boston, Massachusetts.
Dear Sir:

For the purpose of relieving destitution and creating employment by providing a public works program, the Congress of the United States has adopted legislation known as the 'Emergency Relief and Construction Act of 1932', a copy of which is attached hereto. There is provision in this Emergency Relief and Construction Act for the expenditure of $120,000,000, such sum to be apportioned by the Secretary of Agriculture to the several states according to provisions contained in Section 21 of the Federal Highway Act, copy of which is found in Miscellaneous Circular No. 109, United States Department of Agriculture and this is attached hereto.

It is provided in the 'Emergency Relief and Construction Act of 1932', that all contracts involving the expenditure of amounts appropriated for road construction work shall contain provisions establishing minimum rates of wages, to be predetermined by the state highway department, which contractors shall pay to skilled and unskilled labor, and that such minimum rate shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

It is further provided in the 'Emergency Relief and Construction Act of 1932' that 'so far as practicable' individuals who are directly employed on road projects under the Act shall not work more than thirty hours in any one week, and it is required that preference shall be given, when they are qualified, to ex-service men with dependents.

The Department of Public Works also requires by Article 22A of its pamphlet called 'Special Provisions for Federal Emergency Construction Highway Projects', copy of which is attached hereto, that the placing of employees on these projects shall be made through the state public employment offices.

Contracts for this work are made in accordance with the standard specifications of the Department of Public Works which among other things require adherence to the Massachusetts statutes regarding labor on public works, and these contracts are approved by the Department of the Attorney-General.

Contracts of this description have already been made under the provisions of the law and the requirements of the Public Works Department mentioned herein. Several such projects are now in operation in Massachusetts.

There is dissatisfaction in the towns and cities where road construction undertakings of this description are going on. Citizens of the Commonwealth appeal to this Department urging that contractors be required to comply with the provisions of the 'Emergency Relief Construction Act of 1932' and with the provisions of the Massachusetts laws regulating the hours of labor, giving preference to veterans and citizens in employment, and the prevailing rate of wages to be paid to certain employees.

For the purpose of guiding the Department of Labor and Industries, since the 'Emergency Relief Construction Act of 1932' specifically names the state highway department as the authority to carry out certain of its provisions, the following questions are directed to you for an opinion:

(1) Has the Department of Labor and Industries authority to enforce on these contracts the thirty-hour provision, the payment of forty-five and fifty-five cent wage,* the placing of employees through the public employment offices? (It will be noted that the 'Emergency Relief Construction Act of 1932' provides no penalty for failure of a contractor to abide by its provisions.)

(2) In addition, has the Department of Labor and Industries authority to enforce the Massachusetts requirements on these jobs, i.e., preference for veterans and citizens in employment, the eight-hour law where the thirty-hour provisions do not apply, and the prevailing rate of wages to mechanics and teamsters?

An early reply to the foregoing will be appreciated.

Yours very truly,

(Signed) Edwin S. Smith,
Commissioner."

In reply to this request for an opinion the Attorney-General filed the following answer:

* Forty-five cents and fifty-five cents an hour for skilled and unskilled labor, respectively, are the rates which have been set by the Department of Public Works in accordance with the provisions described in paragraph two of this letter.

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF THE ATTORNEY-GENERAL
Boston, November 21, 1932.

Hon. Edwin S. Smith,
Commissioner of Labor and Industries.
Dear Sir:

You request my opinion as to whether your department is under duty by any law of this Commonwealth to take action in regard to allegations that certain contractors having Federal emergency relief contracts (1) are paying less than 45 cents an hour wage, (2) are employing men for more than thirty hours per week, (3) are not hiring employees from lists prepared by public employment offices, (as to which three allegations there are no provisions relating to their content in the statutes of the Commonwealth), and (4) are paying less than the prevailing rate of wages to mechanics, (as to which fourth allegation there is a provision similar in content in G. L., c. 149, S. 26.)

You state that the contracts here in question are made under the Federal Emergency Relief and Construction Act of 1932, and that the work is paid for from Federal funds provided in accordance with that act.

The first three allegations to which you refer, relating to the 45 cents per hour wage, to the thirty hour per week employment, and to the hiring from public employment lists, are provisions of the Federal Law, or made thereunder, and there are no provisions of our laws so prescribing, and the provisions of Federal Law do not vest you with or enable you to exercise the power of enforcing their observance. It is therefore no part of your duty, since you have not been vested with power, to attempt to enforce them. See G. L., c. 149, s. 2.

As to the fourth allegation, though the provision of section 26 of G.L., c. 149 (for the payment of wages at not less than the prevailing rate) is similar in content, it is inapplicable to the contracts here in question. G.L., c. 81, s. 30, designates the Department of Public Works as the department to make any agreements or contracts that may be required to secure Federal aid, and thus operates to remove said contracts from your jurisdiction. Moreover, the Federal law provides its own method for determining minimum wages to be paid under these contracts. The pursuit of that method is part of these contracts, as said section 30 contemplates that it shall be. Accordingly, the provisions of said G.L., c. 149, s. 26. are inapplicable.

Very truly yours,
JOSEPH E. WARNER,
Attorney-General.

While this opinion made it clear that the Department of Labor and Industries had no jurisdiction in the enforcement of either State or Federal provisions in the operation of these contracts, the Division urged upon contractors the payment of fair wages to mechanics and preference to veterans and local citizens in employment, and a fair degree of co-operation was received.

WEEKLY PAYMENT LAW

Violation of the Weekly Payment Law continues to furnish the Division with an amount of work voluminous in detail. When employees who have been victimized in this respect complain to police authorities and court officials, they are advised to enlist the services of the Department of Labor and Industries in bringing criminal action. Then follows a personal interview with the complainant and an examination of all the facts in

each case. Forms are used in the preliminary record and the necessary information entered. These contain questions designed to establish the fact of jurisdiction and to meet the statutory requirements for prosecution in court. Correspondence is then entered upon with the employer, and if the amount due is not paid promptly, personal demand is made by a special investigator from the Division. Action in court then takes place if refusal or failure to comply with the requirements of the Weekly Payment Law occurs. This procedure is without expense to the employee and has proved successful to hundreds of men and women during the year. In 1932, 2,405 complaints were made the basis for investigation. Out of this number it was necessary to prosecute in only 428 cases. The total amount paid by the employers after complaint was filed reached the sum of $49,768.19. Small amounts were usually involved and this fact made it unprofitable for the employee to seek legal assistance.

Two important amendments to the Weekly Payment Law were made by the Legislature of 1932 through the adoption of Chapter 101 of that year. One of these provides that in case a corporation violates this statute, any officer thereof responsible for such violation shall be punished by a fine not less than ten nor more than fifty dollars or by imprisonment for not more than two months, or both. The other concerned the practice of borrowing money from employees in order to defeat the purpose of the law requiring that wages be paid weekly and in full. To control this vicious procedure the statute was amended so that a loan made by an employee to his employer of wages which are payable weekly under Section 148, whether made directly to the employer or to another person or persons on his behalf, shall not be valid as a defense on the trial of a complaint for failure to pay such wages weekly unless such loan shall have been made with the approval of the Department.

Defrauding the laborer of his wages often imposes a grave injury on his family and brings hardship in the home. Much time is occupied by the clerks in settling conflicting claims arising from disputes over the rate of wages. The interested parties are frequently brought to the office and legal requirements of the weekly payment law made known to them. This practice usually results in an agreement being reached and the wages paid. If it appears that the case does not come within the scope of the criminal law and the remedy is in civil action, the employee is advised accordingly. Employees affected by the trustee process or the assignment of wages call at the office and the requirements of the statutes in these matters are made known to them. Through the branch offices located in Worcester, Springfield, Pittsfield, Lawrence and Fall River this service is made available to wage-earners in these sections of the state who need this assistance. To these offices attorneys send their clients to whom small sums of money are due. Public welfare organizations and other agencies advise many to take advantage of this service, and useful aid is rendered to employees who need it.

Report of Legal Activities by Joseph Monette, Counsel

During the year ending November 30, 1932, the Department instituted a total of 1,181 prosecutions as against 916 for the preceding year. There has been a large decrease in the number of prosecutions for non-payment of wages—428 as against 705 in 1931. On the other hand, prosecutions for violation of the sections relating to the employment of women and minors increased greatly in number—158 to 303. As usual, the courts have dismissed or filed a large number of complaints involving the weekly wage law and sanitary regulations, where wages had been paid or the regulations complied with. Using as a pretext the depression in industry, some courts were reluctant to impose the larger fines. Follows a tabulation of the cases entered in court and of their disposition:

Report of the Legal Department for the Year Ending November, 1932.

1,181 Prosecutions:—

788, guilty; 91, not guilty; 198, dismissed; 104, defaults.

788 guilty cases consisted of the following violations:—

428 wage complaints
303 women and minors law violations
24 public works law violations
16 violations—Rules for Prevention of Accidents in Building Operations.
11 violations—Rules Pertaining to the Painting Business.
3 violations—Department's Rules and Regulations (Sanitation)
3 violations—Illegal advertising.

The Penalties in the 788 Guilty Findings were as follows:

428 *Wage Complaints:*

On 25 counts 15 defendants sentenced to House of Correction—terms from 1 week to 2 months.
On 3 counts 1 defendant was fined $100.
On 12 counts 7 defendants were fined $50 on each count.
On 17 counts 7 defendants were fined $25 on each count.
On 19 counts 5 defendants were fined $20 on each count.
On 1 count 1 defendant was fined $20 and committed to jail. Non-payment of same.
On 26 counts 19 defendants were fined $10 on each count
102 cases were placed on probation, the wages being paid through the courts.
219 Cases were placed on file, the wages having been paid when cases were called.
On 4 counts 2 defendants' cases were filed on payment of court costs.

303 *Women and Minors Violations:—*

On 8 counts 2 defendants were fined a total of $300 each, for employing 8 women at time other than stated on printed notice.
On 3 counts 1 defendant was fined a total of $175 for employing women at time other than stated; failing to post time notice; and locked door.
On 15 counts 2 defendants were fined a total of $150 each, for failing to secure 5 certificates; employing 3 at time other; employing 2 women overtime; failing to post time notice; no Sunday schedule filed; not returning 3 certificates.
On 4 counts 1 defendant was fined a total of $125, for employing 3 women at time other; 1 locked door.
On 8 counts 1 defendant was fined a total of $100, for employing 8 women and minors at time other than stated.
On 79 counts 20 defendants were fined a total of $50, each, for employing 75 women and minors at time other than stated; employing 2 women overtime; failing to secure a certificate; employing minor after 10 p. m.
On 4* counts 1 defendant was fined a total of $40, for employing 4 women at time other than stated.
On 3 counts 1 defendant was fined a total of $30, for employing 3 women and minors at time other than stated.
On 15 counts 3 defendants were fined a total of $25, each, for employing 10 women and minors at time other than stated; employing 4 women overtime; 1 locked door.
On 8 counts 1 defendant was fined a total of $15, for employing 3 at time other than stated; failing to post 4 time notices; failing to secure 1 certificate for minor.

* The foreman in this establishment was also fined $40 for these violations.

On 21 counts 8 defendants were fined a total of $10 each, for employing 13 women and minors at time other than stated; overtime employment of 4 women and minors; 2 illegal employment; failing to post a time notice; minor employed after 6 p. m.

On 28 counts 8 defendants' cases were placed on probation, for employing 15 women and minors at time other than stated; failing to secure 2 certificates; overtime employment of 3; failing to post 2 time notices; 6 illegal public exhibitions.

On 100 counts 26 defendants' cases were placed on file, as follows:
53 women and minors employed at time other than stated
15 overtime employment of women and minors.
6 no certificates
13 failing to post time notices
10 illegal public exhibition of children
1 employment of minor on dangerous machinery
1 failing to file Sunday schedule
1 employment of woman under 21 after 6 p. m. in textile manufacture

On 7 counts 4 defendants' cases were filed on payment of courts costs, for employing a child more than 8 hours a day; employing a minor after 6 p. m.; no time notice; employing 2 at time other than stated; employing 2 women more than 9 hours a day.

24—*Public Works Violations:*

On 6 counts a defendant was fined a total of $125.
5 counts—failing to pay prevailing rate of wages
1 count—overtime employment.

On 10 counts a defendant was ordered to pay $54.80 costs.
5 counts—violation citizens' preference
3 counts—violation veterans' preference
2 counts—violation of overtime employment.

On 2 counts a defendant was fined 10.
2 counts—violation veterans' preference.

On 1 count a defendant was fined $10. Overtime employment.

On 2 counts a defendant's case was placed on probation. Veterans' preference.

On 2 counts a defendant's case was filed. Veterans' preference.

On 1 count a defendant's case was filed. Failing to pay the prevailing rate of wages.

16—*Violations—Rules for the Prevention of Accidents in Building Operations:*

On 7 counts a defendant was fined a total of $50.
On 6 counts a defendant was fined a total of $50.
On 1 count a defendant was fined a total of $10.
On 2 counts 2 defendants were place on file.

11—*Violations—Rules Pertaining to the Painting Business:*

11 counts—failing to register—cases filed after defendants had registered with Department.

3—*Illegal Advertising:*

On one count a defendant was fined $10.
On two counts a defendant's case was filed.

3—*Department's Rules and Regulations—Sanitation:*

On 3 counts a defendant's case was filed: Failing to provide reflector, failing to provide first aid; and violation of Toilet Rules.

Retirement of Inspector James P. Reagan

In accordance with the provisions of Chapter 32, Section 56 of the General Laws, Inspector Reagan was retired with the approval of Gov-

ernor Joseph B. Ely on February 1, 1932. Coming to the Department on August 25, 1919, he was assigned to the responsibility of securing compliance with the Rules and Regulations for the Prevention of Accidents in Building Operations. His previous experience as a mechanic in the building industry had especially qualified him for this work, and the performance of his duties as an inspector was marked by intelligent and faithful service.

Report of the Department's Occupational Hygienist, Manfred Bowditch

That the important and complex subject of the prevention of mechanical accidents to industrial employees has a no less vital and specialized co-ordinate in the preventive study of occupational disease is a fact well-known to all who interest themselves intelligently in the welfare of the working population. A recent record of more than 40 new poisonous chemicals—40 new agents of disease—in industry in a single year is but one of many proofs of the imperative need of such work.

This need, and that of accident prevention study by a state agency apart from those of labor law enforcement, have been met in several states, most notably in New York, by the establishment of a Division of Industrial Hygiene, or its equivalent, in the labor or public health department of the state government. While a legislative proposal to provide for the establishment of a Division of Occupational Hygiene in the Massachusetts Department of Labor and Industries failed of enactment in 1932, the support accorded it in the House of Representatives indicated an appreciation of the importance of the work sufficient to justify the assumption that, had conditions been even remotely near the normal, such a departmental division would now be prosecuting, in a broader way, the preventive and allied studies being carried on by the Department's occupational hygienist, appointed April 1, 1932.

Occupational Health Council

To insure to this newly undertaken work an advisory background of the first order in the fields of industrial and community medicine and safety, insurance, social service, labor and industrial management, it was decided to appoint an Occupational Health Council to the Department, of which the following twenty-two men and women consented to serve as members:

David S. Beyer, Vice-president and chief engineer, Liberty Mutual Insurance Co.

George H. Bigelow, M.D., Commissioner of Public Health, State of Massachusetts.

Herrman L. Blumgart, M.D., Director of medical research, Beth Israel Hospital.

B. Preston Clark, Vice-president, Plymouth Cordage Co.

W. Irving Clark, M.D., Director of Personnel, Norton Co.; Director, American Association of Industrial Physician and Surgeons.

Mrs. Robert L. DeNormandie, President, Boston League of Women Voters.

Philip Drinker, Ch. E., Associate professor of Industrial hygiene, Harvard School of Public Health.

Edwin E. A. Fisher, Occupational classifications expert, John Hancock Mutual Life Insurance Co.

Alice Hamilton, M.D., Assistant professor of industrial medicine, Harvard School of Public Health.

Ernest A. Johnson, Secretary-treasurer, Building Trades Council of Boston and Vicinity.

Elliott P. Knight, Assistant superintendent, Engineering Department, The Employers' Liability Assurance Corp., Ltd.

Lewis E. MacBrayne, General Manager, Massachusetts Safety Council.

Miss Katherine McMahon, Director of medical social work, Simmons College School of Social Work; field secretary, National Association of Medical Social Workers.
James T. Moriarty, President, Massachusetts State Branch, American Federation of Labor.
Dwight O'Hara, M.D., Professor of preventive medicine, Tufts College Medical School; Chairman, Standing Committee on Public Health, Massachusetts Medical Society.
Miss Marion E. Rowe, General secretary, New Bedford Family Welfare Society.
Rev. John A. Sheridan, Director, Lynn Catholic Charities Centre.
Sam Squibb, International president, Granite Cutters' International Association of America.
Patrick H. Triggs, Secretary-Treasurer, Massachusetts State Conference of Painters, Decorators and Paperhangers.
Clair E. Turner, Dr. P. H., Professor of biology and public health, Massachusetts Institute of Technology.
Mrs. Clara B. Walker, President and Treasurer, Berwick & Smith Co.
Frank H. Willard, President, Graton & Knight Co.; President, Associated Industries of Massachusetts.

Occasions for consultation with members of this group have been frequent, and a majority of them have already rendered valuable assistance in the solution of one or several departmental problems.

Work Completed or Under Way

The principal undertakings in this field during the last nine months of 1932 have been (1) a revision of the Department's code of rules pertaining to the painting business, (2) the inauguration of a comprehensive survey of the granite industry, (3) the drafting of proposed legislation and departmental regulations with regard to the use of benzol in industry, and (4) an investigation of certain aspects of the question of one day's rest in seven for watchmen and stationary firemen.

Painting Code: The first Massachusetts safety code pertaining to the painting business was adopted jointly by the Industrial Accident Board and the Board of Labor and Industries in 1915. In the light of present-day building trades safety codes, which include several extensive state and national bulletins entirely devoted to the proper construction and use of ladders, it was a most elementary affair. Eight safety rules, six of them pertaining to swing stagings, followed by a variety of safety and health suggestions, made up the whole.

A committee appointed in 1925 to revise this early code produced the present edition, comprising twenty-five safety and five health rules, with suggestions somewhat as before, an obviously more comprehensive regulatory effort, yet one which time and experience have again proved lacking in important particulars.

A feature of the new work in occupational hygiene being, as in other states, the preparation and revision of departmental codes, it was decided to recognize the considerable number of criticisms and suggestions for change in the painting code by placing it at the head of the list for consideration. A committee of master painters, journeymen and others at interest was accordingly appointed to work with members of the Department on a second revision, prepared for their consideration by the occupational hygienist. This committee has held a number of meetings, as have sub-committees on special features of the code, and the work of revision is virtually completed. Important new features are drastic restrictions of the hazardous practice of swinging stagings from the gutters of buildings, a safety factor of four in all forms of support, provision for annual registration of all master painters, and the inclusion of institutions and establishments maintaining their own painting crews under the provisions of the code. The committee is confident that the enforcement of the revised code, which comprises 75%

new material, will materially improve conditions of safety and health in painting operations throughout the state.

Granite Survey: Silicosis is a disease of the lungs caused by the inhalation of dust containing free silica (silicon oxide, SiO^2). It is essentially occupational and affects workers in such varied lines as mining, excavating, metal grinding, sand blasting, pottery making, vitrious enameling and the quarrying, crushing and cutting of granite and other hard rocks. Determined effort toward the control of silicosis in the granite industry is of especial concern to Massachusetts, not because its granite workers comprise any large portion of the State's industrial population, but for such reasons as the following:

1. Granite and granite products are of major commercial and occupational importance to a number of communities within the State and of no small interest to the Commonwealth as a whole.
2. The cutting of granite under modern conditions of mechanization continued over a period of years and without proper safeguards, invariably afflicts the worker with silicosis.
3. Silicosis is an insidious, incurable and, through predisposition to tuberculosis and other severe sicknesses, frequently fatal disease. The death rate from pulmonary tuberculosis among occupied males has been found to be 17.1, as compared to 65.6 for granite cutters in the same community.
4. Control of dust at the source presents the only practical solution of the granite silicosis problem. Though difficult, recent research clearly indicates that it can be done. There are, however, many complicating factors, among them the cost of adequate control to the small establishment which is typical of the industry.
5. While no little attention has been paid by the Department to this problem in the past, and exhaustive studies have been made in other states, no attempt has yet been made to survey this complex situation from every angle of the Massachusetts viewpoint, and it is only by so doing that there is hope of bringing it under control within reasonable time.
6. Although there are among the granite manufacturers a few who have made notable efforts to cope with this hazard, the great majority have assumed an attitude of helplessness or utter indifference. As a natural result, health conditions have gone from bad to worse and insurance rates have been upped and upped, until today the very existence of no small sector of the industry is threatened. The problem is therefore pressing.

Based upon the foregoing facts, a survey has been undertaken with the following ten-point program:

1. An inspection and special report on every establishment in Massachusetts in which granite is quarried, crushed, cut, turned, lettered, finished or polished.
2. An examination of the physical condition of every known granite worker in the State.
3. An investigation into the industry's ability to finance protective measures.
4. A study of all available dust elimination means, including exhaust equipment, collectors and wetting-down devices.
5. A study of the availability of respirators as an auxiliary safeguard.
6. A study of the possibilities of reduction in hazard through changes in manufacturing methods.
7. A consideration of the operation of the Massachusetts Workman's Compensation Law with regard to silicosis cases, with special attention to the problems arising out of allegedly unworthy cases and cases involving prior exposure in other states.
8. A consideration of insurance premium rates, with special atten-

tion to administrative costs and the possibility of developing a new physical rating plan.

9. An effort, through tuberculosis associations and otherwise, to promote uniform silicosis compensation legislation and practice in the principal granite-producing states.
10. The preparation and promulgation of health and safety regulations pertaining to the hazards of the granite industry. Joint action by several states, through an Interstate Code Committee, is to be hoped for.

While preliminary work has been done on most phases of this program, and several are well under way, the only one thus far completed is the first. It is believed that every active granite plant in the State is represented in the recently completed file of special inspection reports on 311 establishments, employing 2,018 workers (exclusive of proprietors), in 85 cities and towns of the Commonwealth. Publication in one of the journals of the findings of this investigation, which will be embodied in a special report, has been suggested.

Support of those parts of the program looking to interstate uniformity has been voted by the New England Tuberculosis Association. The co-operation of the Massachusetts Branch of the American Federation of Labor, the Granite Cutters' International Association of America and the New York State Labor Department is also assured.

Benzol: Coal-tar benzene (C_6H_6), commonly called benzol, is a highly poisonous chemical widely used in industry. Common uses are in the manufacture of rubber goods, shoes, millinery, artificial and coated leathers, lacquers, shellacs, varnishes, paints, sanitary food cans, pharmaceuticals, dyes, brake linings and paint removers. Thanks to the precautions with which its use is generally surrounded, the annual number of reported poisonings is not high, but those that do occur are more than likely to prove fatal. This may in large measure be attributed to failure by the employer to realize that benzol is a constituent of a newly adopted cement or thinner, and hence to take proper precautions in its use.

To correct this situation, a bill has been drafted and filed which, if enacted into law, will require (1) that all receptacles containing benzol or benzol compounds shall be so marked and shall bear the words "BEWARE OF POISONOUS FUMES", and (2) that all users of benzol shall make to the Department such reports as it may require. Ancillary regulations provide for (1) detailed reports from present and future users, with special notification of use in new form or increased quantity or purchase from a new source, (2) reduction of fumes to below a permissible maximum, (3) covering of containers, (4) placarding of workrooms, and (5) maintenance of respirators for emergency use.

It may be added that one of the country's largest manufacturing corporations has recently prohibited the use of benzol throughout its many plants.

One Day's Rest in Seven: Instructed by the 1932 Legislature to invesgate the subject matter of a proposal (House Bill No. 160) to extend the application of the provisions of the One Day's Rest in Seven Law to watchmen and stationary firemen, this work was inaugurated by the Department in September. A study of the social and hygienic aspects of the question led finally to the preparation of the entire report by the occupational hygienist. As the report is available (Senate No. 299) to those interested, further comment on this investigation will not be made here.

Work Projected

Though such a heading is obviously out of place in a report of work done, the fact that this is a report on a new unit in the departmental organization seems to justify a word as to hopes for the future.

The major difficulty with which the work in occupational hygiene has to contend is the elementary one of man-power. It is not a type of work in which a number of lines of investigation may readily be actively pursued by a single individual at one time, and it therefore moves disappointingly slowly. The full-time services of a secretary experienced in this work would greatly enhance the possibilities of accomplishment.

One needs but to consider that the Labor Department of New York State, with less than three times the population of Massachusetts, includes a Division of Industrial Hygiene with a staff of some thirty persons, to realize that the possibilities of useful work in this field are very great. While an organization even remotely proportional can obviously not be looked for here in the near future, it is anticipated that the work under way and projected will by proven worth justify a conservative expansion when conditions permit.

Among undertakings planned for prosecution as time is available may be mentioned:

1. A detailed study of the departmental codes, looking to revision in the light of modern standard safety practice.
2. Development of a more efficient system of code distribution than now exists.
3. Publication of lists of safety devices approved by the Department for specific uses. A list of respiratory devices so approved, based on tests made at the Harvard School of Public Health, is expected to be the first.
4. Publication of lists of the many poisonous substances in use in Massachusetts industries, with reference to the trade names under which they are sold and the degree of caution called for in their use.
5. A study of present methods of reporting industrial accidents, looking to improvements obviously possible and essential to a sound statistical basis for preventive regulation.

REPORT OF THE BOARD OF CONCILIATION AND ARBITRATION

EDWARD FISHER, *Chairman;* HERBERT P. WASGATT, JOHN L. CAMPOS

On December 1, 1931, there were pending ten joint applications for arbitration. During the year 111 joint applications were filed (several of which included groups of employers), making a total of 121. Of these, 20 cases were abandoned, withdrawn or settled without a hearing; decisions were rendered in 100 cases, and one application is now pending. No petitions for certificates of normality were filed.

CONCILIATION

With the earnings of employees in most lines of industrial and other employment still at a low level through reduced rates and part-time employment, it is only natural that considerable unrest should exist among the employees and give rise to an even more restive feeling and attitude on the part of those enjoying little or no employment, evidencing the fact that upon the resumption of employment by reason of improved business conditions demands for increased wage rates and changes in working periods and conditions will surely follow. This situation, if industrial peace is to be maintained, must not be disregarded by those intrusted with industrial and other employment throughout the commonwealth when business conditions give evidence of improvement. This attitude upon the part of employees in normal times, seeking for an improved condition through increased earnings, lessening of hours and improved working conditions, has been aptly termed the "growing

pains of industry," and so long as these demands, arising from time to time, are limited to the capacity of business to comply therewith they should inure to the benefit of both employer and employees and of the community as well, it being universally recognized that reasonably satisfied employees are an asset to any business and that improvement in wage rates and working conditions is not as a rule gained unless sought, and that the continuing prosperity of industry as a whole is finally dependent upon maintaining so far as can be a rising scale of living.

It is generally recognized that the great majority of employers in this commonwealth are not only willing but desirous of paying a fair and reasonable wage to their employees in so far as business conditions and returns in the industry warrant, and also as a whole the employees in turn are loyal to and cooperative with their employers. However, especially during the past year or two, there have entered to some extent, into industrial occupations especially, from within and more particularly from without the commonwealth a class of employers establishing wage rates which, even in time of depression, seem wholly unwarranted and below any reasonable standard of living. To such the Board has been directing its activities and efforts towards remedying these conditions, not only as a board of conciliation and arbitration, but also in its capacity as the Minimum Wage Commission, and will continue to do so with all the authority and power at its command. The labors and activities of the Board have, in one form or another, brought it into contact with many branches of industrial employment. During the current year, generally speaking, no serious labor controversy resulting in cessation of work for any great length of time has occurred, and such difficulties as have arisen wherein there was a cessation of work have been as a rule speedily adjusted. Nevertheless the Board has been busily engaged in its work of conferring with, advising and aiding employers and employees in their efforts to find a solution for their differences. In this respect it has received the hearty cooperation of all parties. The following are among the more important matters which have occupied the attention of the Board.

Granite Cutters, Quincy. The many years of harmonious relationship existing between employers, members of the Quincy Granite Manufacturers' Association, and their employees, members of the Granite Cutters' International Association of America, were interrupted by a strike during the summer, lasting for several weeks. This strike was the result of the inability of the parties to agree upon a division of the constantly increasing cost of liability insurance, which increased cost the employers contended they were unable to bear and which the employees in turn were unwilling to bear. This was the major and vital issue which resulted in the cessation of work. The Board kept in constant touch with the developments of this controversy and when it appeared after many conferences that the parties had apparently exhausted their efforts to adjust the differences, on July 26 the Board called representatives of the parties into conference. At this conference the representatives outlined their respective positions as well as the efforts put forth to reach a settlement. The matter of adopting group insurance was suggested by some employers as offering a solution for the constantly increasing cost of insurance. This did not meet any favorable response from the employees' representatives and apparently neither side had a full or comprehensive knowledge of how this insurance functioned, or its cost. It appeared that the cost of liability insurance was ten per cent of the payroll, of which three per cent was being borne by the employees and the balance by the employers. It was also stated that the rate was to be increased to twelve per cent and in all probability would be still further increased at a later date. The employees suggested that they were willing to reduce their daily wage $1; that is, from $9 to $8.

This was not acceptable to the employers, they demanding that the employees bear a greater percentage of the cost than they were then assuming. As a result the Board suggested that the employers confer apart and submit an offer of adjustment. Accordingly the representatives of the employers submitted an offer to bear five per cent of the cost of insurance, the balance to be borne by the employees. This was not acceptable to the representatives of the employees, who in turn expressed a willingness to bear five per cent of the cost, the employers to bear the balance. After some discussion the Board recommended as a temporary expedient that one-half the cost be borne by each, subject to giving further consideration to the question of adopting group insurance. While the employees' representatives agreed to give this matter consideration, the employers' representatives signified emphatically that it was not acceptable. The Board impressed upon the parties the necessity of further efforts to adjust the controversy, with the result that the conference was adjourned with the understanding that the employees were to present to their membership at a meeting to be held later in the week two questions; one, of accepting the proposal of the employers that the employees bear in excess of five per cent of the liability insurance, based upon the payroll; the other question being whether they would adopt the suggestion of the employers to change to group insurance; with the further understanding that the parties would again confer after the meeting of the employees and continue in their endeavor to reach a satisfactory adjustment. The services of the Board were to be availed of if desired.

Following the meeting of the employees a conference was held by the parties and a temporary adjustment was reached, followed by a resumption of work, which has been continued without interruption up to the present time, although no definite agreement has been reached and no satisfactory adjustment made relative to insurance, which the Board understands is not, in many instances, being provided.

Teamsters, Boston and Vicinity. On ascertaining that a controversy had arisen in the teaming and trucking industry in Boston and vicinity between employers and their employees, members of Local No. 25, International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers of America, regarding the terms of their working agreement, the Board called the parties into conference on February 9. The following firms were represented: Stone's Express, by C. W. Stone; Mass. Motor Trucking Co.,; by F. Hardy; C. Bowen, Inc., by C. Bowen; R. S. Brine Trans. Co., by Mr. Martin; W. F. Cobb & Son Co., by Mr. Cobb; A. M. Somes & Co., by Mr. Emery; D. S. Woodberry Co., by Mr. Woodberry; Big 3 Inc., by F. Hardy. The employees were represented by the following committee: Frank Finnegan, president of Local 25; John F. English, vice-president; Joseph J. Hunt, business agent; M. J. O'Donnell, business agent; and P. H. Jennings, organizer, International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers of America.

While it was stated by the employers that at that time they had no written agreement with their employees, and in the case of one employer no agreement had ever been in effect, yet they were all continuing business with their employees under the terms of the former agreement, and the employers expressed not only a willingness but a desire to continue under such contractual relations. They stated definitely, however, that in order to do so, by reason of the keen competition and the lessening of business and changed conditions of their occupation, they would have to have not only a lowering of the wage rates, but also an adjustment of other conditions, such as overtime hours of labor and holidays, and to this end had some time previously submitted a draft of a new working agreement to the union and, at the suggestion of the union officials, to their employees as well. Thus far no action had

apparently been taken thereon. The representatives of the employees in turn stated that at a meeting of the union held the night before the committee was given authority to take up and settle any wage questions, but this was as far as its authority went. The employers reiterated their stand that a mere wage adjustment would not be sufficient to meet competitive conditions and insisted upon other modifications, emphasizing the necessity for immediate action as business was already being lost to them, giving specific instances where competitors were securing some of their business. After some discussion and upon the recommendation of the Board it was agreed that, as the union was to hold a regular meeting on the Sunday following, the committee should be given an opportunity to report back and await further instructions from the meeting. While the employers were somewhat reluctant by reason of the necessity for immediate action, they finally assented thereto and the conference was adjourned to the following Tuesday, February 16. The conference was resumed on Tuesday at 10:30 A. M. and the committee stated that they had been given full power to adjust any and all differences. A discussion ensued of the terms of the agreement proposed by the employers and the terms of the previous agreement. The terms of the new agreement were taken up article by article. The article relative to the re-arrangement of working hours, while affording some obstacles, did not appear to be insurmountable. The changes as to holidays and compensation therefor presented serious difficulties and the readjustment of the wage scale requested by the employers raised issues, especially as to its specific application. The employees' committee offered to submit the entire matter to arbitration before this Board, but this was not acceptable to the employers. The conference lasted all day; upon adjournment for the lunch hour the Board suggested that it would be prepared in the afternoon to submit recommendations as a basis for a settlement. At the afternoon session the Board outlined its recommendations, the same to be in effect for a period of ninety days, at the expiration of which time such differences as might exist and could not be adjusted by the parties would be submitted to an arbitration board, either a board chosen by the parties themselves or this Board; the determination of the arbitration board to be in effect for the remainder of the calendar year. These recommendations as a whole, however, did not meet with the approval of either of the parties. As the Board and the parties themselves recognized that, if no adjustment was made, this controversy was likely to result in serious consequences, the conference was adjourned with the understanding that the Board would take the matter up further with the parties separately and if an adjustment appeared possible, a further joint conference would be held. Later in conference with the employers the Board pointed out definitely and emphatically the serious consequences which might follow if no settlement was reached, which could be avoided by the employers' agreeing to submit the matters to arbitration as the representatives of the employees had previously offered to do.

As a result the Board on February 25 held a final conference with the parties. The issues involved as well as the question of arbitration were discussed in detail and it was agreed that the existing differences should be submitted to the Board for arbitration; a decision to be rendered not later than March 4, to be effective for ninety days. A hearing was held and a decision was rendered, as appears in this report. Thus what would have been in all probability a very serious controversy was adjusted. The Board understands that at the expiration of the ninety days the parties by mutual agreement continued their contractual relations, substantially in accord with the award made by the Board.

Arbitration

The urgent demand for lower-priced shoes occasioned the shoe manufacturers in Brockton, who were enjoying contractual relations with the Boot and Shoe Workers' Union, to seek a general reduction in manufacturing costs and also gave rise to a demand for a line of shoes lower in price than any existing grade, with a corresponding lowering of labor costs. These types of shoes were designated by the various manufacturers by tags rather than being referred to specifically by grades. The demands of the trade also more and more imposed upon the manufacturer the necessity for producing shoes in lots containing fewer pairs than the regular twenty-four pair case, for which in many instances he was called upon to pay an extra labor cost. Numerous arbitration applications, seeking the relief of a lower labor cost and a change in these conditions, were brought before the Board and as a result the Board was busily engaged during the year in settling through its decisions such of these matters as were presented to it for determination. While the duties of the Board have been somewhat onerous, the spirit in which its decisions have been accepted by both the employers and the employees is not only a credit to them but also evidences the value and worth, especially during these trying times, of the Stamp Contract, so-called, under the terms of which for so many years all differences which could not be otherwise adjusted have been presented to the Board for determination. A complete list of the decisions of the Board appears in a separate report.

List of Industries Affected and Principal Differences in Conciliation and Arbitration Cases

Conciliation

Industries Affected: Baking, Building, Clothing, Granite, Hotel, Hosiery, Motion Picture, Necktie, Paper, Shoe, Tanning, Teaming, Textile, Transportation.

Principal Differences: Wages, Working Conditions, Discharge.

Arbitration

Industries Affected	*Issues Arbitrated*
Baking	Wages
Shoe	Wages, working conditions, discharge
Teaming	Wages, working conditions, interpretation

REPORT OF THE MINIMUM WAGE COMMISSION

Edward Fisher, *Chairman;* Herbert P. Wasgatt, John L. Campos; Mary E. Meehan, *Acting Director*

Outline of Functions

The duties of the Minimum Wage Commission under the law comprise the following functions: investigating the wages of women employees in occupations where there is reason to believe that the wages of a substantial number are below the requirement of healthful living; establishing wage boards to recommend minimum rates for women and minors; entering wage decrees based on the recommendations of the boards; inspecting to determine compliance with the decrees; reconvening wage boards to meet changes in the cost of living; and publishing the names of employers found violating its decrees.

Work in 1932

With the entry of a decree in the pocketbook and leather goods occupation, effective October 3, twenty-two decrees are now in force. The policy

of the Commission, which has been more effectively carried out this year, of keeping its investigators engaged in field work and in the office only when necessary, while resulting in some additional expense has increased in volume and effectiveness the work of the Commission. Active field work has been especially necessary during the year because of the reduction in commodity prices and the consequent continued readjustment downward of labor costs by employers coming under the provisions of the various decrees. Accompanying an intensive program in regular inspection work have been repeated and numerous reinspections endeavoring to secure compliance, also numerous inspections upon complaint; the latter being in some instances in occupations not covered by any decree, the information thereby secured being of value for future determination as to the occupations in which wage boards should be established and affording an opportunity in some instances, where very low wage rates are found, of calling this to the attention of the employers and endeavoring to secure more reasonable wage adjustments. This has been especially true in the dry-cleaning establishments, an industry which has grown rapidly in recent years; also to some extent in branches of the shoe industry.

The over-production or under-consumption, whichever term may be given as applicable to the existing economic situation and consequent unemployment, and the severe competition, resulting to some extent from states having no minimum wage law, present many varied and difficult problems in securing compliance with its decrees. It must be borne in mind that these decrees, with the exception of the recent one in the pocketbook and leather goods occupation, were established during a period when business conditions were at a much higher level. This, with the change in the cost of living, has caused requests and even complaints to be made continually to the Commission by employers seeking a revision of its decrees, among whom are many who in the past have complied. This has become imperative from their point of view by reason of the necessity for a readjustment in their labor cost to meet competition. In endeavoring to meet the present situation the Commission is daily in conference with employers or their representatives, offering suggestions relative to the raising of wages, changes in hours and working conditions, etc., to meet compliance, and granting reasonable extension of time where justified and where it seemed that with such extension discharges of employees could be avoided and compliance secured. Employers and employees as well are faced with unusual problems arising by reason of the economic and business stagnation, and as a result not only is a heavy burden placed upon the Commission in endeavoring to carry out the provisions of the law, but even the law itself is receiving a severe test. The employers as a whole are endeavoring to keep all their employees at work even when working part time only, resulting in irregular hours; in many instances the hours not representing the actual working time. The business conditions are such that few if any employers manufacture stock ahead, but are making goods "from hand to mouth", as it is commonly expressed. Competitive conditions are very keen and, as stated above, employers are keeping full crews on the "share and share alike" basis when a smaller crew might well be maintained. Appeals are made to employers from many sources, including governmental agencies, state and federal, and welfare boards, requesting that as many employees as possible be kept at work.

While the Commission has authority to require employers to keep for a specified, limited period, a record of the hours employed as well as the compensation of these employees, the Commission has exercised this authority with discretion as otherwise such action on its part would have a tendency to discourage rather than encourage employers to keep all their help at work even for part time only. Under the law the Commission has no authority to revise a wage decree except by reconvening a wage

board or establishing a new one in an occupation, the legislature failing to follow the recommendation of the commission established in 1931 to investigate the operation of the minimum wage law, under which recommendation the Commission would have been given power with limitations to revise its decrees without the services of a wage board. Realizing the exigencies of the situation relative to securing compliance with its decrees by reason of the economic situation and in the face of the reduced cost of living, the Commission sought funds with which to meet the expense of reconvening such of its wage boards as might be deemed advisable and time would permit of, and the consolidating of other decrees, especially in the needle trades. Such funds, however, were not made available. Under these circumstances the Commission has been placed in the position, as already stated, of exercising care and consideration in endeavoring to enforce its decrees, especially with those employers who have heretofore complied therewith. The Commission also during the year has been endeavoring to meet the situation referred to in its annual report of 1931, arising through employers coming into the commonwealth and occupying, especially in the mill centers, vacant factories and putting into effect wage rates resulting in earnings not only very much below those called for by its decrees, but in many instances rates so low that there can be no justification whatever therefor. The Commission has published the names of these employers and is continuing its efforts to secure compliance.

The Commission is also recommending legislation, under the terms of which it may revise decrees in order to meet changes in the cost of living without the slow and expensive process of reconvening or establishing a new wage board, and is also seeking an extension of its authority, as recommended by the commission above referred to, whereby the Commission may grant a license permitting an employer of female employees who are suffering from physical or other defects to pay a rate below the minimum; the existing law limiting such authority to instances of physical defects only. It must be apparent to those conversant with the operation of the minimum wage law that it is especially desirable in the face of the changes in the cost of living that the Commission should have this authority to revise its decrees. This lack of elasticity or flexibility in the law not only creates distrust and apprehension, but also arouses opposition as well on the part of employers coming under the provisions of decrees, thereby presenting an issue as to the effective working of the law. The same situation would exist on the part of employees if economic conditions warranted increases. The law is recommendatory in its effect and to secure its reasonably satisfactory enforcement it needs the support not only of employers and employees but of the public as well. When not responsive to an excessive rise or fall in the cost of living it creates a feeling of distrust and opposition not only to the law itself, but also to those engaged in its enforcement. The law itself, as already referred to, is receiving a severe test during this period of depression and perhaps the most severe since its enactment. Massachusetts is not only the only state in the East, as it is commonly stated, but also the only largely industrial state having a minimum wage law. With the severe competition both from within and without the commonwealth, with the general existing condition of part-time employment in the various industries and occupations, and with employers keeping their full complement of help employed in so far as possible, serious problems of administration and enforcement are presented. It is such times as these during which the minimum wage law should demonstrate its value and worth in stabilizing and maintaining in so far as possible fair and equitable wage rates and earning levels in the light of the existing cost of living. Thus far through constant contact with employers and to some extent with employees and their representatives, and with the exercise of judgment in the enforcement or attempted enforcement of decrees, including the granting of

reasonable extensions of time for compliance, the Commission is of the opinion that the law has accomplished its purpose to a gratifying extent. The reputable employers in occupations coming under the provisions of the decrees have evidenced and expressed a desire to maintain so far as circumstances permit wage rates and earnings, in the face of the change in the cost of living, in compliance with or approximately in compliance with its decrees.

Without the minimum wage law and its resultant decrees there would not be this inducement or incentive or the ideals (if one may use this latter word) on the part of these employers which are now engendered by their respect for and desire to comply with all legal requirements; and without the law in many, if not most instances, the unscrupulous employer would not be under any restraint, which is maintained to some extent by reason of this law.

Wage Boards

Pocketbook and Leather Goods Industry. A wage board consisting of seven members, organized during the year in the pocketbook and leather goods occupation, completed its work on July 8, having held eight meetings, and submitted a unanimous report of its determination to the Commission. This is the only board which has been constituted during the period of depression and it estimated the cost of living for a self-supporting woman in the occupation at $12.50 a week, recommending that this be established as the minimum rate for female employees eighteen years of age or over, with one year's experience in the occupation, at least one month of which has been in the particular factory, with a special rate of $11.25 for experienced employees under eighteen years of age and $10 and $8 for learners and apprentices, depending upon age. In submitting this report this wage board for the first time took under consideration and made a recommendation relative to employees engaged in work requiring no skill or experience, in which an employee could become efficient in not exceeding two days. This is a problem which has presented itself to the Commission in enforcing its decrees in several occupations, concerning which conferences have been held with employers, and it has been a serious obstacle in securing full compliance with some decrees. The Commission, however, after due consideration and for reasons which it will not attempt to enumerate, declined to approve this recommendation although it was offered as a part of the determinations of the wage board and to some extent its insertion resulted in the unanimous report which was submitted by that board. After a public hearing on August 3 the Commission on August 17 approved, with the exception above noted, the recommendations of the wage board, to be effective October 3.

Waste Sorting Industry

An investigation of this industry was completed the previous year, but in view of the fact that the cost of the wage board in the pocketbook and leather goods occupation had exhausted the available funds and that, comparatively speaking, not a large number of women were employed in this industry, the Commission did not find itself in a position to establish a wage board therein during the present year.

Advertisement of Non-Compliances*

While it is the duty of the Commission to publish the names of firms that fail or refuse to comply with its decrees, the Commission has continued in its established policy of resorting to publication only after using every reasonable effort to secure compliance; except, however, where there was a definite refusal or where the wage rates and resulting earn-

*See table 1.

ings were found so low that reasonable prospects of compliance could not be secured. The present year, as already pointed out, has presented to the Commission many and varied problems in its work of enforcing decrees, calling for unusual care and attention in the face of the economic and business conditions, more particularly with those firms who heretofore have been found in compliance. These latter firms the Commission has found under all the circumstances to be co-operative in their efforts and desirous so far as possible of meeting the provisions of the decrees, although temporarily instances of non-compliance exist. As to the firms paying the low wage rates above referred to, the Commission after inspection or reinspection as the case might be, has resorted to publication.

Table 1 outlines the non-compliance publications during the fiscal year ending November 30, 1932. In most instances the number of firms which it has found necessary to publish represents only a small proportion of all the firms inspected in the occupation, and the same is true of non-compliance cases. However, the muslin underwear occupation this year as well as last represents, both as to firms and cases, by far the greater number of non-compliances. Advertisement this year represents the sixth publication under the paper-box decree; the fifth publication under the candy, men's furnishings and muslin underwear decrees; the fourth under electrical equipment and supplies and retail stores decrees; the second under the men's clothing and corset decrees; and the first publication under the bread and bakery products and the toys, games and sporting goods decrees.

Inspections

The regular work of the Commission has been the completion during the year of inspections initiated in 1931 under the following decrees: brush, candy, corset, electrical equipment and supplies, jewelry, knit goods, laundry, paper box, stationery goods and envelopes, and toys, games and sporting goods. Inspection has also been initiated and is still in progress under the following decrees: men's furnishings, muslin underwear, retail stores, women's clothing and another inspection in stationery goods and envelopes. Late in the year inspection was commenced under the pocketbook and leather goods decree, which became effective October 3, and is still in progress at the close of the year. In addition to the regular work there have been inspections or reinspections under each of the other decrees; in some instances these representing partial inspection only; in other instances only a few establishments, the latter being made as a rule either on complaint or as a check-up on the part of the Commission or preliminary to publication for non-compliance.

In connection with the regular inspection work wage records for tabulation were secured for 56,243 women and girls in 3524 firms. In addition a large number of reinspections were made. As a rule these include revisits to secure adjustment of non-compliances found in the course of the regular inspection; also reinspections preliminary to publication in the case of firms with cases pending from the previous year. These reinspections represent visits to 389 establishments and rechecking 7811 wage records, making a total of 64,054 in 3913 establishments. In addition investigations have been made of firms in the following occupations not coming under any decree to determine the wage rates and earnings; branches of boot and shoe manufacturing, 49 establishments, 1361 records secured; cleansing and dyeing, 17 establishments, 673 records secured; button manufacturing, one establishment, 22 records secured; curtain manufacturing, one establishment, one record secured, making a total of 68 establishments and 2057 wage records. Thus making a grand total of 66,111 wage records secured in 3981 establishments.

Disposition of Inspection Cases

Disposition of Non-compliances Pending from Previous Years (See Table 2)

At the beginning of the fiscal year there were outstanding from the previous years 1326 cases of non-compliance in 109 establishments. Most of these came under the retail store decree, 398 cases in 45 establishments, the majority of which have been advertised one or more times. There were also 196 cases in 17 paper box establishments, 177 cases in 10 candy establishments, 161 cases in two knit goods establishments and 94 cases in nine muslin underwear establishments. The remaining cases were divided among the following decrees: bread and bakery products, brush, electrical equipment and supplies, jewelry, laundry, men's clothing, office cleaners, stationery goods and envelopes; toys, games and sporting goods, and women's clothing.

Adjustments. A large proportion of the cases were in establishments previously published and comparatively few adjustments were effected. Wages were raised to meet the provisions of the decrees in 61 cases in 18 establishments. Adjustments by change in work, hours, or method of payment whereby the employees were enabled to earn the minimum, were made in 51 cases in nine establishments. There were seven employees in three establishments covered by the piece rate ruling, and in 179 cases in 24 establishments it was reported that the employees had left.

Advertisements. The firms advertised included 696 cases in 66 establishments which were pending at the beginning of the year, and were distributed as follows: 347 cases in 45 retail stores; 147 cases in 12 paper box establishments; 126 cases in three candy establishments; 53 cases in one bread and bakery establishment; 16 cases in three muslin underwear establishments; three cases in one electrical equipment establishment; and four cases in one toys, games and sporting goods establishment.

Cases Pending. There are outstanding at the close of the year 325 cases in 25 establishments, mainly under the knit goods decree.

Disposition of New Cases Found in Firms with Cases Outstanding from Previous Years. (See Table 3)

In the course of the reinspection of firms with cases outstanding from previous years, 405 new cases were found in 19 establishments. The majority of these, 142 cases in three establishments, came under the candy decree; the remaining cases were under the jewelry, knit goods, laundry, men's clothing, muslin underwear, paper box, retail store and stationery goods decrees.

Adjustments. As the great number of these cases were in establishments that had never complied, adjustments were secured in comparatively few instances. In four cases in three firms wages were raised to meet the provisions of the decree. Adjustments by change in work, hours, or method of payment whereby the employees were enabled to earn the minimum, were made in 16 cases in one establishment. Three employees in one establishment were covered by the piece rate ruling. In 10 cases in two establishments employees who were receiving below the minimum were reported as having left.

Advertisements. One hundred and sixteen cases in six establishments were advertised, comprising 47 cases in two muslin underwear establishments, 44 cases in one candy establishment and 25 cases in three retail stores.

Cases Pending. There were pending at the close of the year 255 cases in 12 establishments, mainly under the candy, stationery goods and envelopes and knit goods decrees.

Disposition of Cases in the Regular Inspection Work

(See Table 4)

In 1164 establishments 15,096 cases of non-compliance were found. This is by far the largest number of non-compliances ever listed in any year. While this is in part explained by the fact that the inspection work has been more than double that of the previous year, yet in reality it reflects to a much greater degree the results of the business and economic depression as percentagely with reference to the previous year it shows more than double the number of non-compliance cases; the percentage for 1931 being 12.4 and for 1932, 26.8.

Adjustments. With respect to the cases settled, wages were raised for 737 women in 206 establishments. Adjustments by change in work, hours, or method of payment whereby the employees were enabled to earn the minimum, were made in 153 cases in 63 establishments. Adjustment was promised or reported in 81 additional cases. There were 66 employees in 29 establishments who came under the piece rate ruling. This ruling provides that in cases of experienced operators where the great majority on a given operation are earning the minimum or over, the rates are considered to be in accordance with the decree. Twenty-one employees in 17 establishments were covered by the special license provision; in 263 cases in 106 establishments it was reported that the employees had left; in 19 cases in nine establishments the employees were reported to have been discharged or laid off. In 137 cases in 14 establishments the firm was reported out of business.

Advertisements. Forty-four establishments with 2697 cases of non-compliance were advertised during the year; including 1181 cases in 22 muslin underwear establishments, 1061 cases in seven men's furnishings establishments, 364 cases in seven electrical equipment and supplies establishments, 46 cases in two men's clothing establishments, 31 cases in five paper box establishments and 14 cases in one corset establishment.

Cases Pending. At the close of the year there were pending in the regular inspection work 10,861 cases in 751 establishments. These are mainly under decrees where the inspection is still in progress, as retail stores, muslin underwear, pocketbook and leather goods, men's furnishings, stationery goods and envelopes and women's clothing. Many cases under the clothing decree are in establishments which, as pointed out in the last report, came into the commonwealth from other states and located in textile centers. The low wages paid by many of these concerns are still creating a serious problem, which the continued depression makes more difficult to deal with.

Summary

A survey of the work and accomplishments of the Commission shows two especially interesting and important developments during the year. First; the greatly increased inspection work accomplished by the Commission through its investigators, including the regular inspection work, cases pending from previous years and reinspections, making a total of 64,217 wage records, taken in 3,913 establishments. This is greatly in excess of the inspection work of any previous year and more than double that of last year. In addition, 2,057 wage records were taken in 68 establishments in occupations not coming under the provisions of any decree. Second; the great increase in the number of non-compliance cases, which are more than double those of any previous year. This situation, as hereinbefore outlined, arises to a great extent by reason of the economic and business conditions. The consequent effect thereof in lowering the wage rates and earnings of both men and women in all, or nearly all lines of employment, while depressing should not be viewed with undue alarm as evidencing any structural weakness in or failure on the part of the minimum wage law or its enforcement. However, it does evidence the necessity on the part of the Commission of continuing with its active

and effective inspection work and arousing the public in so far as possible to a realization of the existing conditions and the unfair competition to which reputable employers are subjected by these employers who pay unjust, unconscionable and destructively low wage rates. This is especially true in some lines of the needle trades, many of these employers coming into the commonwealth in recent years and occupying vacant mill properties in textile centers. The problem of dealing with such employers has given and is giving the Commission serious concern.

In addition to the tables referred to, accompanying this report is also a list of the wage board members in the pocketbook and leather goods occupation, together with the cost of living budget adopted and a copy of the decree established by the Commission in this occupation; also, a copy of the opinion of the attorney general relative to the scope of the word "minors" as applying to age and sex.

Table 1. — Advertisement of Non-compliances Under Minimum Wage Decrees. 1932*

Industry	Date of advertisement	Number of establishments in most recent inspection	Number of records in most recent inspection	Cases of non-compliances		Per cent of non-compliances	
				Firms	Cases	Firms	Cases
Toys, Games and Sporting Goods	12/15/31	28	972	1	4	3.6	.4
Bread and Bakery	1/25/32	53	1168	1	53	1.9	4.5
Retail Stores	2/25/32 4/3/32	2417	24,359	48	372	2.0	1.5
Candy	4/20/32	72	4555	3	170	4.2	3.7
Electrical Equipment and Supplies	5/12/32	57	3507	8	367	14.0	10.5
Men's Clothing	7/2/32	76	2338	2	46	2.6	2.0
Men's Furnishings	7/2/32 7/13/32 8/24/32	68	3376	7	1061	10.3	31.4
Muslin Underwear	7/2/32 7/6/32 8/24/32 11/17/32 11/30/32	86	3363	27	1244	31.4	37.0
Paper Box	11/4/32	116	2770	17	178	14.7	6.4
Corset	11/30/32	16	558	1	14	6.3	2.5

*This includes 696 cases in 66 establishments where non-compliances were pending from previous years; also, 116 new cases in 6 of these establishments.

Table 2. — Disposition of Cases of Non-compliance Pending from Previous Years

(C — Cases; E — Establishment)

Situation and Disposition of Cases	Bread and Bakery Products		Brush		Candy		Electrical Equipment and Supplies		Jewelry and Related Lines		Hosiery and Knit Goods		Laundry		Men's Clothing and Raincoats		Muslin Underwear	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Pending from previous years	53	1	1	1	177	10	28	2	14	2	161	2	25	3	67	4	94	9
ADJUSTMENT																		
Wages raised	–	–	1	1	15	5	25	1	2	2	1	1	3	1	–	–	4	2
Change in work, hours or method of payment	–	–	–	–	4	3	–	–	–	–	–	–	1	1	23	1	5	1
Covered by piece rate ruling	–	–	–	–	4	1	–	–	–	–	–	–	–	–	–	–	3	2
Incorrectly recorded	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Left	–	–	–	–	22	5	–	–	–	–	3	1	12	2	34	3	7	2
Firm out of business	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not under decree	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ADVERTISED IN 1932	53	1	–	–	126	3	3	1	–	–	–	–	–	–	–	–	16	3
PENDING	–	–	–	–	6	2	–	–	12	1	157	2	9	2	10	2	59	4

Table 2. — Disposition of Cases of Non-compliaance Pending from Previous Years — Concluded

(C — Cases; E — Establishment)

Situation and Disposition of Cases	Office and Other Building Cleaners		Paper Box		Retail Stores		Stationery Goods and Envelopes		Toys, Games and Sporting Goods**		Women's Clothing		Total	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Pending from previous years	3	3	196	17	398	45	79	5	24	3	6	2	1326*	109
ADJUSTMENT														
Wages raised	–	–	5	1	2	1	1	1	–	–	2	2	61	18
Change in work, hours or method of payment	–	–	9	2	–	–	9	1	–	–	–	–	51	9
Covered by piece rate ruling	–	–	–	–	–	–	–	–	–	–	–	–	7	3
Incorrectly recorded	–	–	–	–	4	2	–	–	–	–	–	–	4	2
Left	–	–	18	4	35	3	45	3	–	–	3	1	179	24
Firm out of business	–	–	–	–	–	–	–	–	2	1	–	–	2	1
Not under decree	1	1	–	–	–	–	–	–	–	–	–	–	1	1
ADVERTISED IN 1932	–	–	147	12	347	45	–	–	4	1	–	–	696	66
PENDING	2	2	17	4	10	1	24	3	18	1	1	1	325	25

*Includes 19 cases in 4 establishments where adjustment was reported, but inspection still showed non-compliance.
**This includes one firm omitted in last year's report.

Table 3. — Disposition of New Cases of Non-compliance in Firms where Cases were Pending from Previous Years

Situation and Disposition of Cases	Candy		Jewelry and Related Lines		Hosiery and Knit Goods		Laundry		Men's Clothing and Raincoat		Muslin Underwear		Paper Box		Retail store		Stationery Goods and Envelopes		Total	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Number of cases of non-compliance	142	3	13	1	43	1	23	1	37	1	62	4	4	2	28	4	53	2	405	19
ADJUSTMENT																				
Wages raised	–	–	–	–	–	–	–	–	2	1	–	–	1	1	1	1	–	–	4	3
Change in work, hours or method of payment	–	–	–	–	–	–	–	–	16	1	–	–	–	–	–	–	–	–	16	1
Spec. lic.; spec. lic. type or similar case	–	–	–	–	–	–	–	–	3	1	–	–	–	–	–	–	–	–	3	1
Left	–	–	–	–	–	–	–	–	9	1	–	–	–	–	1	1	–	–	10	2
Technical non-compliance	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	1	1
ADVERTISED IN 1932	44	1	–	–	–	–	–	–	–	–	47	2	–	–	25	3	–	–	116	6
PENDING	98	2	13	1	43	1	23	1	7	1	15	2	3	2	–	–	53	2	255	12

Members of the Pocketbook and Leather Goods Wage Board

Representing the Public: Mrs. Helen T. Baldwin, 16A Ashburton Place Boston, Mass.

Representing the Employers: Mr. I. N. Geffen, Geffen Weene Co., 111 Beach St., Boston, Mass.; Mr. Hyman Mover, Boston Leather Specialties Co., 210 Broadway, Everett, Mass.; Mr. Richard A. Thomas, Malden Leather Goods Co., 470 Atlantic Ave., Boston, Mass.

Representing the Employees: Mr. Manuel Aruda, 34 Calvin St., Somerville, Mass.; Mrs. Ann M. Page, Bernardston Road, Greenfield, Mass.; Miss Elsie Walsh, 52 Ashley St., Springfield, Mass.

Cost of Living Budget for Self-Supporting Woman in the Pocketbook and Leather Goods Occupation

Adopted June 3, 1932

Items	*Amounts*	*Items*	*Amounts*
Board and lodging	$7.75	Church	.15
Clothing	2.00	Self-improvement	.20
Laundry	.20	Vacation	.25
Carfares	.60	Recreation	.40
Doctor, dentist and oculist	.30	Reserve for emergency	.40
		Insurance	.25
		Total, per Week	$12.50

Minimum Wage Decrees Entered or Made Effective During the Year 1932.

Pocket-book and Leather Goods

Workers Affected		Minimum Wage Rates*	Qualifications	Date	
Class	Age			Decree Entered	Decree Effective
Experienced females of ordinary ability	18 or over	$12.50	To be deemed "experienced" after reaching the age of 18 years and having had at least one year's experience in the industry, one month of which shall be in the particular plant.	August 17, 1932	October 3, 1932
	Under 18 years	$11.25			
Learners and Apprentices: After six months' experience	Any	$10.00			
First six months	Any	$8.00			

*Weekly.

November 14, 1932.

Hon. Edwin S. Smith,
Commissioner of Labor and Industries
Dear Sir:

You request my opinion as to whether the word "minors" as used in G.L., c. 151, S. 3, is limited to females. You also request my opinion as to whether the word is so limited in section 7, and also as to what is the age limit of minors, as that word is used in section 7.

(1) Section 3 provides for the determination by a wage board of the minimum wages suitable for a "female employee" and also for "learners and apprentices and for minors under eighteen." The word "minors", as here used, applies only to female minors. This follows from the fact that under the provisions of the two preceding sections a wage board is appointed only as a result of an investigation by the minimum wage commission, and such investigation is by the terms of section 1 confined to "female employees." Also no provision is made under section 2 for representation on the wage board of any employee other than "female employees". Since sections 1 and 2 apply only to female employers, section 3 is not to be construed as including any other class.

(2) Separate provision is made in section 7 for the determination of minimum wages of minors as a class. This section provides that "The commission may at any time inquire into the wages paid to minors in any occupation in which the majority of employees are minors, and may, after giving public hearings, determine minimum wages suitable therefor. When the commission has made such a determination, it may proceed in the same manner as if the determination had been recommended to it by a wage board". The word "minors" as here used applies to both male and female.

In answer to your question as to the age limit of minors as referred to in this section, I would say that it is twenty-one years for male or female. That is the age of majority under the common law in this State. Section 7 is distinct from section 3, and the construction of the word "minors", as used in section 7, is not affected by the reference to "minors under eighteen", contained in section 3.

Very truly yours,

JOSEPH E. WARNER,
Attorney-General.

Table 4.—Summary of Adjustments in Connection with Inspection in 1932 under Minimum Wage Decrees.

(C — Cases; E — Establishments)

Situation and Disposition of Cases	Boot and Shoe Cut Stock and Findings[1]		Bread and Bakery Products		Brush[2]		Candy[2]		Canning, Preserving and Minor[1] Lines of Confectionery		Corset[2]		Druggists' Compounds and Proprietary Med.[1]		Electrical Equipment and Supplies[2]		Jewelry and Related Lines[2]		Hosiery and Knit Goods[2]		Laundry		Men's Clothing and Raincoats[1]	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Records for tabulation and establishments represented	18	6	1,042	68	381	18	914	32	407	9	316	13	45	6	3.115	54	2,442	81	1,753	39	5,887	344	1,580	14
Compliance at Inspection	9	2	987	54	373	13	654	25	374	6	235	8	42	5	2,592	38	1,758	77	1,483	35	5,212	264	1,454	6
Establishments with full compliance	1	1	649	54	358	14	250	25	268	6	131	7	32	5	2,293	37	2,149	73	835	26	4,010	267	6	2
Cases of non-compliance	9	4	55	14	8	5	260	7	33	3	81	6	3	1	523	17	684	4	270	13	675	80	126	8
ADJUSTMENTS																								
Wages raised	–	–	18	7	1	1	24	2	20	1	2	2	–	–	9	5	1	1	5	1	86	32	9	1
Change in work, hours, or method of payment	–	–	1	1	–	–	5	2	–	–	16	1	–	–	3	1	–	–	3	2	6	2	–	–
Adjustment promised or reported	–	–	3	1	2	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	16	3	1	1
Covered by piece rate ruling	–	–	–	–	–	–	–	–	–	–	2	2	–	–	6	2	1	1	7	4	4	2	–	–
Special license, special license type or similar case	–	–	–	–	–	–	–	–	–	–	2	1	–	–	–	–	3	2	1	1	5	3	–	–
Incorrectly recorded	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Left	1	1	5	4	1	1	17	2	–	–	13	2	–	–	7	2	4	3	7	5	27	10	–	–
Discharged or laid off	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–
Firm out of business	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	7	2	2	1	–	–
Not under decree	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Classification changed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Technical non-compliance	3	1	13	1	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
ADVERTISED	–	–	–	–	–	–	–	–	–	–	14	1	–	–	364	7	–	–	–	–	–	–	46	2
PENDING	5	3	14	3	4	2	214	4	13	2	32	2	3	1	133	2	673	9	239	4	529	42	70	5

[1]Represents partial inspection only.
[2]Work under this decree represents completion of inspection initated previous year.
[3]Work in process at close of present year.
[4]Initial inspection, work not completed.
[5]Work under this decree represents completion of inspection initiated previous year, and new inspection in process.

Table 4. — Summary of Adjustments in Connection with Inspection in 1932 under Minimum Wage Decrees—Concluded.

(C — Cases; E — Establishments)

Situation and Disposition of Cases	Men's Furnishings[3]		Millinery		Muslin Underwear[3]		Office Cleaners[1]		Paper Box[2]		Pocketbook and Leather Goods[4]		Retail Stores[3]		Stationery Goods and Envelopes[5]		Toys, Games and Sporting Goods[2]		Women's Clothing[3]		Total	
	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.
Records for tabulation and establishments represented	3,810	71	136	24	4,438	79	192	72	995	46	1,571	30	23,124	2,326	1,816	56	367	7	1,894	129	56,243	3,524
Compliance at Inspection	2,138	21	117	23	2,380	20	159	58	932	32	833	29	16,274	2,074	1,348	35	106	2	1,687	83	41,147	2,910
Establishments with full compliance	934	24	95	21	611	22	158	58	605	23	22	2	11,932	1,565	627	41	93	2	792	79	26,851	2,354
Cases of non-compliance	1,672	50	19	3	2,058	60	33	14	63	14	738	28	6,850	761	468	21	261	5	207	46	15,096	1,164
ADJUSTMENTS																						
Wages raised	28	4	–	–	94	7	11	4	5	2	5	4	393	120	18	6	–	–	8	6	737	206
Change in work, hours or method of payment	3	1	–	–	8	2	–	–	–	–	5	1	103	50	–	–	–	–	–	–	153	63
Adjustment promised or reported	7	2	1	1	13	1	–	–	–	–	14	2	18	15	1	1	–	–	4	3	81	32
Covered by piece rate ruling	9	5	–	–	17	1	–	–	10	5	3	1	–	–	3	2	–	–	4	4	66	29
Special license, special license type or similar case	–	–	–	–	1	1	–	–	–	–	–	–	6	6	–	–	–	–	3	3	21	17
Incorrectly recorded	/	–	–	–	–	–	–	–	–	–	–	–	4	3	–	–	–	–	–	–	5	4
Left	11	5	–	–	34	5	4	2	5	3	–	–	119	55	2	1	–	–	6	5	263	106
Discharged or laid off	–	–	–	–	–	–	–	–	–	–	–	–	11	7	–	–	7	1	–	–	19	9
Firm out of business	82	1	–	–	–	–	–	–	–	–	–	–	22	8	–	–	–	–	23	1	137	14
Not under decree	–	–	–	–	–	–	5	2	–	–	–	–	7	5	–	–	–	–	–	–	12	7
Classification changed	–	–	–	–	–	–	–	–	–	–	–	–	6	5	–	–	–	–	–	–	6	5
Technical non-compliance	–	–	–	–	–	–	1	1	–	–	–	–	20	18	–	–	–	–	–	–	38	22
ADVERTISED	1,061	7	–	–	1,181	22	–	–	31	5	–	–	–	–	–	–	–	–	–	–	2,697	44
PENDING	471	34	18	2	710	28	12	8	12	5	711	23	6,141	524	444	13	254	5	159	30	10,861	751

[1]Represents partial inspection only.
[2]Work under this decree represents completion of inspection initiated previous year.
[3]Work in process at close of present year.
[4]Initial inspection, work not completed.
[5]Work under this decree represents completion of inspection initiated previous year, and new inspection in process.

REPORT OF THE DIVISION OF STANDARDS

JOHN P. McBRIDE, *Director of Standards*

RETIREMENT OF FORMER DIRECTOR

Francis Meredith, the first Director of Standards appointed under the law consolidating departments in December, 1919, was honorably retired from service on October 29, 1932, by reason of operation of law. The accomplishments of the Division during the past year, therefore, are due to the efforts of his administration.

Having served as an inspector during his entire administration, the present Director of Standards is in a position to speak for the entire office and inspectorial force in paying deserved tribute to the retiring Director, whose friendly interest in each of his subordinates was such as to promote in all a zeal to perform their several duties in a manner commensurate with the highest ideals of public service.

In the discharge of his official duties he was always actuated by a sense of right and proper thing to do, and in all decisions on matters coming before him he aimed to be equitable and just.

His advice and example during the past thirteen years are of inestimable value to his successor in his effort to achieve an equal measure of success in his own administration.

NEW SCALE TESTING EQUIPMENT

The annual report for 1931 included a detailed description of new equipment, consisting of a specially designed truck and standard weights sufficient to make a gross load of 30,000 pounds, to be used in testing large capacity scales.

Although there was no special appropriation to provide for the operation of this equipment, it was possible, with some cooperation from the Department of Public Works, to make a limited number of scale tests, the results of which showed the desirability of having apparatus of this character constantly available.

Tests were made of scales located at Fall River, in connection with disputed weights of coal delivered to a large industrial plant; at Weymouth, Braintree, Quincy, Taunton, Boston and Lynn tests were made of various scales used in weighing coal and coke. Other tests were: Springfield, the City scale and two other scales in weighing coal and road-building materials; at Fort Banks, Winthrop on request of military authorities; and at the State Prison Colony, Norfolk, where a new scale had been installed.

DIVISION PUBLICATIONS

The following publications were issued during the year:—

1. Report of the Director of Standards for the year ending Nov. 30, 1931.
2. Bulletin No. 28, containing a complete list of approved and disapproved weighing and measuring devices, vending machines, etc., and the names and business addresses of manufacturers of milk jars, wholesale milk containers, ice cream cans, clinical thermometers, apothecaries' glass graduates, and lubricating oil bottles, who have been authorized by the Director of Standards to affix a manufacturer's seal upon their product as provided in various statutes.
3. Pamphlet: Specifications, Tolerances and Regulations for Liquid-Measuring Devices.
4. Legal Standard Sizes for Anthracite Coal established by the Director of Standards as required by section 239A, chapter 94, General Laws.
5. Transient Vendors' License Law, as amended to date.

CLINICAL THERMOMETERS

According to records of shipments filed in this office by the manufacturers, there were 152,921 clinical thermometers bearing the manufac-

turers' seals shipped during the past year, of which 99,335 were sold in Massachusetts and 53,586 in other states and in the Dominion of Canada.

After inspection of clinical standards used in their factories and satisfactory results of repeated tests of their products, two additional manufacturers were authorized to affix a MASS SEAL mark upon clinical thermometers of their manufacture.

Laboratory Work

Calibration of State Standards for Cities and Towns

Article	Tested	Adjusted	Sealed	Condemned
Avoirdupois weights	407	184	401	6
Metric weights	30	–	30	–
Apothecary weights	27	–	27	–
Totals	464	184	458	6

Clinical Thermometers

Description	Tested	Passed	Rejected	Per Cent Passed
Massachusetts seal	3,243	3,163	80	97.53
Unsealed	3,314	2,910	404	87.80
Totals	6,557	6,073	484	92.61

Fees amounting to $359.65 were received for testing and certifying clinical thermometers to be offered for sale in this commonwealth by manufacturers who had not been authorized to affix a manufacturers seal upon them.

Cans, Cartons and Other Containers, Measures and Weighing and Measuring Devices Submitted in Connection with Manufacturers' Applications for Approval, or for Authority to Affix the Manufacturers' Seal Thereon.

Cartons to be used in the sale of ice cream and other specified commodities	Tested	Accurate	Inaccurate
	69	56	13
Wholesale milk cans	2	2	–
Milk jars (glass)	29	24	5
Lubricating-oil jars	33	25	8
Liquid measures	28	21	7
Slot weighing machines	18	13	5
Slot vending machines	3	2	1
Computing scales	6	5	1
Computing scale charts	11	10	1
Spring scales	1	–	1
Large capacity automatic-indicating scale	1	1	–
Totals	201	159	42

Miscellaneous Tests

Automatic test-measures for gasoline pumps	Tested	Accurate	Inaccurate
	11	11	–
Apothecary weights	28	28	–
Metric weights	31	31	–
Troy weights	1	1	–
Prescription scales	1	1	–
Parcel-post scales	4	4	–
Egg-grading scales	2	–	2
Platform scales	1	–	1
Laboratory Thermometer	1	–	1
Linear Measures	12	12	–
Berry baskets	11	2	9
Totals	103	90	13

Other laboratory work included measurement of 104,949½ yards of sewing thread; screening thirteen samples of anthracite coal to determine size; weighing twenty-four packages of food for manufacturers to determine proper statement of quantity of contents; testing five liquid measures to be used as manufacturer's standards in the manufacture of commercial measures; weighing a burst gun-barrel for Department of Public Safety; assisting representatives of the Department of Public Works and of the Transit Commission in comparison of six surveyors' tapes with the state standard.

Field Work of Inspectors

One of the principal duties of the inspectors is to advise and instruct local sealers of weights and measures so that each may be qualified to perform the work required in his municipality. While that phase of the inspectors' work is essential and necessarily takes much time, the following compilation indicates their activities in other directions:

Number of Inspections. Stores, 448; gasoline pumps, 130; pedlers, 295; transient vendors, 218; net weight marking, 27; coal weight certificates, 29; ice scales and price lists, 6; oil, 4; total, 1157.

Weighing and Measuring Devices. Sealed, 1961; unsealed, 1069; total inspected, 3030.

Clinical Thermometers. Sealed, 100; total inspected, 100.

Reweighings

Commodity	Number	Correct	Under	Over
Coal (loads)	30	4	10	16
Packages of food, etc.	1,112	556	202	354
Totals	1,142	560	212	370

State Institutions

Article	Tested	Adjusted	Sealed	Condemned
Scales	191	23	174	17
Weights	592	51	569	23
Liquid measures	7	–	7	–
Gasoline pumps	8	7	8	–
Oil pumps	1	–	1	–
Prescription graduates	6	–	–	6
Totals	805	81	759	46

The inspectors' field work also included examination of the design and construction, and testing, to determine accuracy under varying working conditions, of 101 gasoline, fuel oil and grease measuring devices submitted by manufacturers for approval of type under section 29, chapter 98, General Laws.

Certificates of fitness for appointment as measurers of leather were issued to 16 persons who passed satisfactory examinations, while two other applicants failed to qualify.

Complaints Investigated

Sixty three complaints involving insufficient weight or measure and violations of the hawkers' and pedlers' and transient vendors' license laws were investigated by the inspectors and appropriate action taken in each case. In a number of cases, where the circumstances did not warrant prosecution, restitution was made. Notable among these were the cases of two dealers who, on account of irregularities in filling municipal coal contracts, refunded an aggregate of $1,087.97 to the municipality, and that of a municipal health department which, through error in figuring the capacity of a truck used in the sale and delivery of garbage, gave

insufficient measure for a considerable period to the proprietor of a piggery in a neighboring city and was ultimately required to refund the sum of $650 in settlement. Two partners in a poultry business, who were prosecuted for insufficient weight in the purchase of live chickens from a farmer, in addition to payment of fines aggregating $120 were also required to make restitution to the amount of $65.44.

Prosecutions

There were 29 complaints prosecuted in the courts during the year. Convictions resulted in 25 cases, 2 pleaded nolo, and fines aggregating $255 were imposed. Following is a summary of prosecutions made by inspectors and disposition of the various cases:

Court Cases

Nature of Offence	Number of complaints	Convicted	Discharged	Pleaded nolo	Dismissed without finding	Filed	Fines imposed
Insufficient weight in purchase of chickens	2	1	1	–	–	–	$40
Using false scale	4	2	–	2	–	–	95
Conducting transient business without license	12	10	1	–	1*	6*	45
Peddling jewelry contrary to law	1	1	–	–	–	–	25
Peddling without license: —							
Bakery products	2	2	–	–	–	2*	–
Dry goods	1	1	–	–	–	1*	–
Fruits	1	1	–	–	–	–	5
Ice Cream	1	1	–	–	–	–	10
Vegetables	1	1	–	–	–	–	10
Furnishing goods to unlicensed minor	1	1	–	–	–	–	10
Employing minor to peddle without license	2	2	–	–	–	1	10
Failure to have license plates on vehicle	1	1	–	–	–	–	5
Totals	29	25	1	2	1	10	$255

*Licenses secured before final disposition.

Office Work

Weighing and measuring devices approved as to design and construction under section 29, chapter 98, General Laws, included 2 truck-tank meters, 3 gasoline meters, 59 gasoline meter systems, 36 grease measuring devices, 16 liquid measures, and 15 scales.

Under section 283, chapter 94, General Laws, 9 coin-operated person-weighing scales, 2 apple-vending devices, 1 chewing-gum vending device, 1 chocolate-vending device, 1 peanut-vending device, 1 magazine-vending device, and 1 amusement device were approved by the Director.

Under section 13, Chapter 98, General Laws, eight manufacturers were authorized to affix the manufacturers' seal-mark upon 99 additional types of clinical thermometers.

Under section 15, chapter 98, General Laws, one manufacturer was authorized to seal certain milk jars of his manufacture.

Under section 18, chapter 98, General Laws, one manufacturer was authorized to seal certain wholesale milk-cans of his manufacture.

Under section 22, chapter 98, General Laws, paper or fibre cartons submitted by six manufacturers were approved for use as measures in the sale of certain specified commodities.

Under section 14A, chapter 98, General Laws, seven manufacturers of lubricating-oil bottles were authorized to seal such bottles.

Under section 3, chapter 101, General Laws, cash amounting to $1500 was deposited and surety bonds aggregating $234,500 were filed with the director by applicants for transient vendors' licenses, to be subject to legal claims arising in connection with the transient business conducted under such licenses.

As shown by the detailed financial statement included elsewhere in this report, a total of $131,110.98 was received from all sources, including fees for hawkers' and pedlers' and transient vendors' licenses, and for testing clinical thermometers.

Licenses

Transient Vendors

There were 472 licenses issued to transient vendors and the fees received from this source amounted to $11,800. There were twelve persons prosecuted for conducting a transient business without licenses.

Hawkers and Pedlers

There were 4841 hawkers' and Pedlers' licenses and 1631 transfers of licenses for which fees were received, as compared with 5354 issued and 1121 transferred during preceding year. Special licenses were issued without fee to 664 disabled veterans of the World War, 163 more than were issued in 1931.

Educational and Cooperative Activities

Because of prevailing conditions, the National Conference on Weights and Measures and many of the annual conventions of sealers of weights and measures including that of the Massachusetts association were omitted in 1932. Representatives of this Division, however, responded to invitations to address various trade and civic organizations, these including Director Francis Meredith who addressed the Worcester Kiwanis Club, April 1, on the subject "Standards of Today and Yesterday"; Inspector John P. McBride, delivered a talk to members of the "Boston Friendship Tours" on the subject of "Weights and Measures in Relation to Household Commodities", on the occasion of their tour through the manufacturing and packing plant of a grocery concern, on February 12, and also addressed a meeting of the New England Retail Secretaries' Association at the University Club, Boston, September 20, on the laws relating to transient vendors; Director Francis Meredith and Inspectors John P. McBride and A. L. Jones addressed the Waltham Chamber of Commerce at different times upon the same subject; and Inspector Jones addressed the Whittier Home Association at the John G. Whittier Home in Amesbury on April 21.

Inspector William Bradley represented the Massachusetts Association of Sealers of Weights and Measures at the annual convention of the New York State Association of Sealers of Weights and Measures, at Buffalo, N. Y. on July 20.

Information and advice was frequently requested and freely given to weights and measures officials of other States to assist in the solutions of their problems.

Reweighing of road-building materials delivered from time to time on State contracts were made on request of the Public Works Department, precise weighings were made for the Department of Public Safety, and assistance was given to representatives of the Transit Commission and others in the calibration of surveyors' tapes by comparison with the State standard.

Local Sealers of Weights and Measures

Information and figures included in the following summary are gleaned from the annual reports of local sealers filed with the director as required by section 37, chapter 98, General Laws. The sealer of weights and measures for the town of Tyringham violated the provisions of this statute by failure to submit the required report.

Summary of Local Sealers' Work

Article	Adjusted	Sealed	Non-sealed	Condemned
Scales				
Platform (over 5,000 lbs.)	405	2,687	95	120
Platform (100 to 5,000 lbs.)	4,774	23,966	971	706
Counter (100 lbs. or over)	178	1,647	39	53
Counter (under 100 lbs.)	2,096	17,574	412	368
Beam (100 lbs. or over)	155	1,752	132	69
Beam (under 100 lbs.)	37	658	8	2
Spring (100 lbs. or over)	221	5,832	54	445
Spring (under 100 lbs.)	3,800	30,009	306	1,175
Computing (100 lbs. or over)	110	749	8	39
Computing (under 100 lbs.)	4,565	23,449	201	928
Personal weighing (slot)	55	3,947	–	302
Prescription	164	1,814	19	66
Jewellers'	4	76	11	1
Totals	16,564	114,160	2,256	4,274
Weights				
Avoirdupois	6,219	136,779	1,411	406
Apothecary	173	20,737	–	444
Metric	98	8,262	289	65
Troy	27	1,747	49	13
Totals	6,517	167,525	1,749	928
Capacity Measures				
Vehicle tanks (compartments)	12	2,189	–	7
Liquid measures	343	41,395	–	498
Ice cream cans	10	1,934	–	21
Glass graduates	–	1,601	–	69
Oil jars	–	28,014	–	209
Milk jars	–	617	–	–
Dry measures	–	893	–	20
Fuel baskets	–	1,371	–	11
Totals	365	77,964	–	835
Automatic Measuring Devices				
Gasoline Pumps	4,325	20,175	2,628	992
Gasoline Meters	3,148	8,150	–	835
Kerosene Pumps	225	3,189	167	91
Oil Pumps (lubricating)	869	9,727	6,702	221
Grease-measuring devices	220	708	4	81
Molasses pumps	55	906	57	–
Quantity stops (on measuring pumps)	7,886	91,821	–	–
Leather-measuring machines	11	236	–	13
Totals	16,739	134,912	9,558	2,233

	Adjusted	Sealed	Non-sealed	Condemned
Linear Measures				
Yard sticks	–	7,508	–	112
Tapes	–	78	–	5
Taximeters	443	3,348	–	63
Cloth-measuring devices	–	983	–	17
Totals	443	11,914	–	197
Grand Totals	40,628	506,475	13,563	8,467

Sealing fees collected	$59,968.29
Adjusting charges	4,735.58
Total collected	$64,703.87

Reweighings and Remeasurements

Commodity	Number of Reweighings, etc.	Correct	Under	Over
Bread	39,070	29,306	3,941	5,823
Butter	26,825	22,746	2,005	2,074
Charcoal (in paper bags)	1,039	950	30	59
Coal (loads)	1,525	478	237	810
Coal (in paper bags)	12,053	7,740	1,258	3,055
Coke (in paper bags)	443	376	12	55
Confectionery	7,173	5,941	141	1,091
Dry commodities (groceries etc.)	34,929	29,345	1,968	3,616
Dry goods	108	83	2	23
Flour	9,384	6,892	950	1,542
Fruit and vegetables	17,550	11,776	2,520	3,254
Grain and feed	834	679	79	76
Hay	142	90	40	12
Ice	1,074	535	66	473
Liquid commodities	7,478	5,779	1,316	383
Meat and provisions	15,680	13,498	868	1,314
Wood (cord)	259	212	30	17
Wood (kindling)	1,064	1,028	3	33
Wood (in paper bags)	3,624	3,598	5	21
Miscellaneous	663	445	85	133
Totals	180,917	141,497	15,556	23,864

The annual reports also indicate that reweighings and remeasurements were made by local sealers for various municipal departments as follows: —957 cords of wood, 1 tank-load of fuel oil, 3 tank-loads of gasoline, 2,778 loads of coal, 219 loads of hay and grain, 13 truck-loads and 1 car load of crushed stone, 5 loads of asphalt, 2 loads of hot-mix, and 608 miscellaneous reweighings and remeasurements.

Local sealers inspected 7,628 clinical thermometers, 1,842 coal weighers' certificates, 2,707 ice scales, 453 junk scales, 2,444 pedlers' scales, 485 transient vendors, 5,723 pedlers' licenses, 37,420 markings of food packages, 17,889 weight statements on bread, 32,332 ice cream cans, 4,099 wholesale milk cans, 14,509 milk jars, 18,112 lubricating-oil bottles, 10,007 paper or fibre cartons, and 1891 other miscellaneous items; and tested 2,145 berry baskets, 3,067 cartons, 1,277 climax baskets, 5,180 milk jars, 1,740 lubricating-oil bottles, 2,622 standard farm-produce boxes, 183 United States standard barrels, 3,888 re-tests of gasoline measuring devices after sealing, and made 1,146 other miscellaneous tests.

Prosecutions by Local Sealers

Nature of Offence	Number of complaints	Convicted	Discharged	Pleaded nolo	Filed	Defaulted	Dismissed without finding	Fines imposed	Appealed
Giving insufficient weight of: —									
Bread	5	5	–	–	1	–	–	$55	–
Cheese	1	1	–	–	–	–	–	10	–
Chicken	2	1	–	1	–	–	–	40	–
Coal	3	1	–	–	1	–	1	25	–
Fruit	4	1	–	–	1	3	–	–	–
Ice	3	2	1	–	1	–	–	5	–
Meat	1	1	–	–	–	–	–	5	–
Potatoes	1	1	–	–	1	–	–	–	–
Turkey	3	2	–	1	1	–	–	20	–
Miscellaneous	2	2	–	–	–	–	–	35	–
Giving insufficient measure of: —									
Ice Cream	1	1	–	–	–	–	–	25	–
Fuel oil	1	–	–	1	1	–	–	–	–
Wood	2	1	1	–	1*	–	–	–	–
Attempt to give insufficient measure of fuel oil	2	2	–	–	2	–	–	–	–
Sale of apples otherwise than by weight or count	1	1	–	–	–	–	–	5	–
Larceny in sale of turkey (overcharge)	1	1	–	–	–	–	–	$5	–
Larceny by false pretense	1	–	–	–	–	–	1	–	–
Using false scale	4	4	–	–	–	–	–	85	–
Using condemned scale	3	2	–	–	1	–	–	20	–
Using unsealed scale	4	4	–	–	2	–	–	15	–
Using unsealed measure	1	1	–	–	1	–	–	10	–
Interfering with deputy sealer	1	1	–	–	1	–	–	–	–
Improper coal weight certificates	3	2	–	1	–	–	–	10	–
Failure to issue certificate in sale of cord wood	1	1	–	–	–	–	–	5	–
Failure to provide scale on ice vehicle	11	8	–	3	10	–	–	5	–
Failure to post price-list on ice vehicle	11	10	–	1	9	–	–	50	1
Conducting transient business without license	3	3	–	–	–	–	–	30	–
Peddling jewelry contrary to law	2	2	–	–	2	–	–	–	–
Peddling without license: —									
Bakery Goods	1	1	–	–	1	–	–	–	–
Coal	6	5	1	–	1	–	–	–	4
Flowers	1	–	–	–	–	1	–	–	–
Fruit	9	6	–	–	5	3	–	$10	–
Ice Cream	1	1	–	–	–	–	–	5	–
Sandwiches	1	1	–	–	1	–	–	–	–
Wood	1	1	–	–	1	–	–	–	–
Miscellaneous	44	39	3	–	15	2	–	378	1
Peddling ice cream under expired license	1	1	–	–	–	–	–	25	1
Furnishing goods to unlicensed minors	5	4**	–	1	2	–	–	150	–
Employing minor to peddle without license	1	1	–	–	–	–	–	15	–
Permitting minor to peddle without license	1	1	–	–	–	–	–	20	–
Refusing to produce license on demand of sealer	1	1	–	–	–	–	–	10	1
Failure to display license plate on vehicle	1	1	–	–	–	–	–	10	1
Totals	152	124	6	9	61	9	2	$1,083	9

*Filed upon payment of costs and reparation.
**One given suspended sentence of two weeks in House of Correction.

Financial Statement of the Division of Standards

Receipts

1,403	State (hawkers' and pedlers') license fees	$70,150.00
1,702	County (hawkers' and pedlers') license fees	15,114.00
831	City (hawkers' and pedlers') license fees	21,574.00
905	Town (hawkers' and pedlers') license fees	10,672.00
472	Transient vendors' license fees	11,800.00
1,144	Transfer fees	1,144.00
	Total receipts from license fees	$130,454.00
	Fees received for licenses not issued	155.00
	Fees for testing clinical thermometers	359.65
	Interest on deposits	142.33
	Total receipts	$131,110.98

Payments

To State Treasurer:		
1,403 State license fees	$70,150.00	
1,702 County license fees	1,702.00	
831 City license fees	831.00	
905 Town license fees	905.00	
472 Transient Vendors' license fees	11,800.00	
1,144 License Transfer fees	1,144.00	
Fees received for licenses not issued	155.00	
Fees for testing clinical thermometers	359.65	
Interest on deposits	142.33	
Total payments to state treasurer		$87,188.98
To county treasurers	$13,412.00	
To city treasurers	20,743.00	
To town treasurers	9,767.00	
Total paid to county, city and town treasurers		$43,922.00
Total payments		$131,110.98

Summary

Appropriation, personal services	$32,460.00	
Expended	32,161.13	
		298.87
Appropriation, general expense	$7,020.05	
Expended	5,217.51	
		1,802.54
Unexpended balance		$2,101.41
Total income to the commonwealth from licenses, interest, fees for testing clinical thermometers, etc.		87,188.98
Total expenditures		37,378.64
Excess of income over expenditures		$49,810.34

Retrospect

The following comparison has been a feature of the Director's annual reports for a considerable period. As it appears to serve a useful purpose by furnishing an index of progress or retrogression in the work of the division since its establishment it will continue to be included in successive reports from year to year.

Comparison

	1919	*1932*	*Increase*
Number of inspectors employed	7	8	1
Number of clerical and laboratory employees	4	7	3
Motor vehicles owned	4	6*	2
Paid for inspectors' salaries	$9,907.66	$19,475.00	$9,567.34
Paid for clerical and laboratory employees	3,511.95	8,580.00	5,068.05
Number of hawkers' and pedlers' licenses issued	1,560	5,505**	3,945
Number of transient vendors' licenses issued	31	472	441
Total expenditures	$25,778.54	$37,378.64	$11,600.10
Received from fees, etc, and paid to state treasurer	30,590.00	87,188.98	56,598.98
Received from pedlers' licenses fees and paid to treasurers of counties, cities and towns	10,578.00	43,922.00	33,344.00
Excess of income over expenditures	4,812.36	49,810.34	44,997.98

* Including truck used with equipment for testing heavy capacity scales throughout the commonwealth.

** Including transfers.

REPORT OF THE DIVISION OF STATISTICS

ROSWELL F. PHELPS, *Director*

INTRODUCTORY

The principal branches of the work of the Division of Statistics are the collection and publication of statistics of labor and manufactures and the answering of inquiries relative to industrial conditions in the Commonwealth. These several branches of the work of the division during the year 1932, are discussed in this report.

The statistical data herein presented relate for the most part to the calendar year, but summary data for certain prior years are also included for purposes of comparison, and charts showing, graphically, the trends of employment and earnings of wage-earners in the principal industries and municipalities appear in the appendix to this report.

The general supervision of the State public employment offices, which since January, 1920, had been one of the duties of the Director of Statistics (although not a statistical function), was assigned on April 1, 1932 to the Director of the new Division of Public Employment Offices, then organized with a full-time Director in charge. Accordingly, the report of the activities of the four State public employment offices during the past year is being issued as a separate report of the new division, instead of being included in the report of the Division of Statistics.

RECENT INDUSTRIAL CHANGES IN MASSACHUSETTS

Toward the close of 1929 there was unmistakable evidence of a general decline in industrial activity in Massachusetts, as elsewhere throughout the United States, and in fact, in nearly all countries of the world. This decline marked the beginning of the present major depression which has since gained in intensity and which at the close of 1932 had covered a period of more than three years.

During the year 1932 the number of wage-earners employed in the manufacturing industries in Massachusetts, considered as a group, reached the lowest point recorded in any year during a period of at least thirty years.

In Table 1 data are presented, for the years 1913 to 1932, showing the average number of wage-earners employed in the manufacturing industries in the Commonwealth, the average yearly earnings of those employed, the real value of their yearly earnings, and the relative cost of living in Massachusetts, based on wage-earners' budgets. Corresponding index numbers for each of these items are also presented. These index numbers have been computed, using as a base the respective data for the year 1913=100. The trends are shown, graphically, on the accompanying chart.

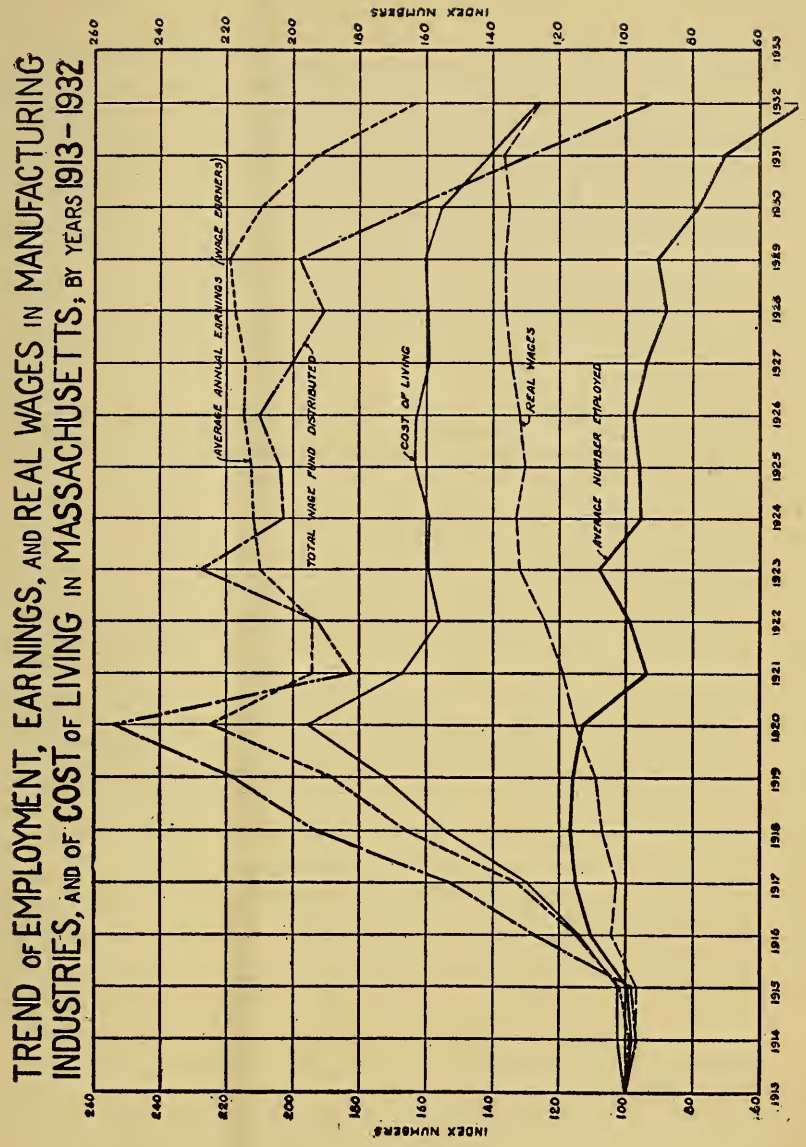
Table 1. — Industrial Trends in Massachusetts, 1913–1932.

(Base — 1913 = 100)

Years	Average Number Employed in Manufacturing		Amount Paid in Wages during the Year		Average Annual Earnings		Index Numbers	
	Absolute	Index Number	Dollars (000 omitted)	Index Number	Dollars	Index Number	Cost of Living[1]	Real Value of Average Annual Earnings
1913	*616,927*	*100.0*	*$351,300*	*100.0*	*$569.43*	*100.0*	*100.0*	*100.0*
1914	606,698	98.3	341,310	97.2	562.57	98.8	102.1	96.8
1915	596,348	96.7	346,243	98.6	580.61	102.0	102.2	99.8
1916	682,621	110.6	447,958	127.5	656.23	115.2	110.4	104.3
1917	708,421	114.8	537,145	152.9	758.23	133.2	129.5	102.9
1918	719,210	116.6	679,401	193.4	944.65	165.9	154.5	107.4
1919	713,836	115.7	766,623	218.2	1,073.95	188.6	172.6	109.3
1920	695,832	112.8	891,177	253.7	1,280.74	224.9	195.3	115.2
1921	579,071	93.9	641,361	182.6	1,107.57	194.5	163.7	118.8
1922	612,682	99.3	678,074	193.0	1,106.73	194.4	156.1	124.5
1923	667,443	108.2	799,363	227.5	1,197.65	210.3	159.4	131.9
1924	589,364	95.5	711,812	202.6	1,207.76	212.1	159.2	133.2
1925	591,438	95.9	716,156	203.8	1,210.87	212.7	163.3	130.3
1926	602,343	97.6	738,208	210.1	1,225.56	215.2	163.1	131.9
1927	578,068	93.7	705,930	200.9	1,221.19	214.5	159.4	134.6
1928	540,927	87.7	670,063	190.7	1,238.73	217.5	159.7	136.2
1929	557,198	90.3	694,488	197.7	1,246.39	218.9	160.6	136.3
1930	481,449	78.0	573,838	163.3	1,191.89	209.3	155.0	135.0
1931	434,188	70.4	474,147	135.0	1,092.03	191.8	141.1	135.9
1932[2]	350,390[2]	56.8[2]	325,739[2]	92.7[2]	929.32[2]	163.2[2]	122.4	133.3

[1] Compiled from reports of the Massachusetts Commission on the Necessaries of Life.

[2] Estimates based on results of "Monthly Surveys of Employment and Earnings in *Representative* Manufacturing Establishments."


TREND OF EMPLOYMENT, EARNINGS, AND REAL WAGES IN MANUFACTURING INDUSTRIES, AND OF COST OF LIVING IN MASSACHUSETTS; BY YEARS 1913-1932
INDEX NUMBERS
(AVERAGE ANNUAL EARNINGS (WAGE EARNERS))
TOTAL WAGE FUND DISTRIBUTED
COST OF LIVING
REAL WAGES
AVERAGE NUMBER EMPLOYED
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932

On reference to the foregoing table and the chart, it will be observed that 1920 was the year of greatest industrial activity in Massachusetts. Then followed the industrial depression beginning the latter part of 1920, and continuing through the year 1921 and the early portion of 1922. Since 1923, except for the years 1925, 1926 and 1929, when slight improvements were noted, the number employed in the manufacturing industries has steadily decreased. These changes are indicated by the index numbers of employment for the several years, and by the curve on the chart designated as "average number employed." The index number of employment for the year 1931 was 70.4, representing a reduction of 29.6 per cent in the average number employed in 1931, as compared with the average number employed in 1913, and for 1932, the index number was 56.8, representing a reduction of 43.2 per cent in the average number employed in that year, as compared with the average number employed in 1913. In marked contrast with this decrease in employment, there was an increase of nearly 21 per cent in the population of the State during the same period (1913-1932).

Certain other significant facts are disclosed by the data in the table, and by the trend lines on the chart. Although the number of persons employed in the manufacturing industries in Massachusetts was less by 43.2 per cent in 1932 than in 1913, the actual amount paid in wages to those employed in 1932 was only 7.3 per cent less than the corresponding amount paid to those employed in 1913.

It is also remarkable that, notwithstanding the great reduction in the number of persons employed in the manufacturing industries in the State in 1932, as compared with the number employed in 1913, the average annual earnings of those *actually* employed in 1932 exceeded the corresponding average annual earnings of those employed in 1913 by 63.2 per cent.

Furthermore, the *real* value, or purchasing power of the average annual earnings of wage-earners employed in 1932, has shown no marked change, even during the present depression, because of the large decrease in the cost of living during the past two years. The *real* value of the average annual earnings in any year is determined by dividing the index number representing the average annual earnings, by the index number representing the cost of living. Although the cost of living in Massachusetts has fallen considerably from the peak in 1920, when the index number of the cost of living in Massachusets, as computed by the Massachusetts Commission on the Necessaries of Life, stood at 195.3, as compared with the relative cost in 1913 (the base year), the cost of living index number for 1932 was still 122.4, or 22.4 per cent higher than in 1913. The index number in 1932 representing the *real* value, or purchasing power, of the average annual earnings of wage-earners employed in the manufacturing industries in Massachusetts was 133.3, or 33.3 per cent higher than the *real* value of the average annual earnings of those employed in 1913.

In the foregoing paragraphs reference has been made to employment and earnings of wage-earners in the *manufacturing* industries, considered as one general group. Later in this report consideration in some detail will be given to the fluctuations in employment and earnings of wage-earners in the principal manufacturing industries, separately, and in other important fields of employment, namely, wholesale and retail trade, building and highway construction, public utilities, municipal service, office and miscellaneous employment, and agriculture. While it is true that there have been marked reductions in the numbers employed and their earning power in nearly all lines of business during the past three years, all have not been affected to the same extent. The building and construction industry appears to have been affected more seriously than other industries or fields of employment, notwithstanding earnest efforts which have been made to stimulate activity by the promotion of

federal, state, county and municipal building and highway projects. Of the manufacturing industries, the textile and boot and shoe industries (except for limited periods of seasonal activity) rank next to the building and construction industry among those industries most seriously affected. Wholesale and retail trade, which are directly affected by the depleted purchasing power of consumers, of whom wage-earners form a very large percentage, may be mentioned as probably the next in order. Public utilities, office employment and agriculture have been affected to a less extent, and the numbers employed in municipalities were not generally reduced until the close of 1932, but in many of the cities and towns salaries were reduced in most cases by ten per cent or more, either by direct order or by voluntary contributions of employees.

The depression, which at the close of December 1932, had continued for a period of more than three years, and which, in Massachusetts, reached the lowest point in July 1932, has resulted in reducing the standard of living of many families in which the income had been greatly reduced because of unemployment or decreases in rates of wages, or both, and many of those who, in better times, have not had occasion to apply for public welfare aid, have been forced to do so. During the latter half of the year 1931, reductions in salaries and wages were beginning to be reported, and, from month to month thereafter, reductions were reported in rapidly increasing numbers, with the result that at the close of 1932 reductions in rates of wages, seldom less than 10 per cent, and usually greater, had become effective quite generally in all lines of employment throughout the State. In 1929 the average annual earnings of wage-earners in the manufacturing industries in Massachusetts amounted to $1,246.39, while in 1932 the corresponding amount was $929.32—a decrease of $317.07, or 25.4 per cent, due to decreases in rates of wages and part-time employment combined. During this period, 1919 to 1932, there was a decrease of 23.8 per cent in the cost of living, which was only slightly less than the percentage decrease (25.4) in the average annual earnings of those *actually* employed. Those wage-earners, however, who were so unfortunate as to have been thrown out of employment altogether were forced to reduce their standard of living, notwithstanding this large decrease in the cost of living.

Statistics of Labor

The statistics of labor collected by the division are published as "Labor Bulletins", or as "press announcements" in mimeographed form, containing the results of regular monthly surveys and special inquiries, which are issued in order that information of current interest may become immediately available.

Labor Bulletins

Labor Bulletin No. 165. Annual Directory of Labor Organizations in Massachusetts, 1932. This directory contains, as in previous editions, the name, location, time, and place of meetings and the name and address of the secretary and business agent of each labor organization having its headquarters in Massachusetts, together with a list of all the national and international labor organizations having one or more affiliated local unions in the United States, and the names and addresses of their respective secretaries, insofar as these items could be ascertained.

The number of organizations listed in this directory was 1,548, of which 137 were national and international organizations, 66 were state and district councils, 100 were central labor unions and councils, and 1,245 were local unions.

Labor Bulletin No. 166. Time Rates of Wages and Hours of Labor in Massachusetts, 1932. This is the twenty-third of a series of annual reports of a similar nature, the first of which was issued by the former Bureau of Statistics in 1910. Nearly all of the information published

in the earlier reports of this series was obtained from officials of labor organizations, and the reports for each of the years, 1913 to 1923, inclusive, were published under the title, "Union Scale of Wages and Hours of Labor in Massachusetts." From year to year the additional information obtained from employers has been included and, beginning with the report of 1924, the reports have been issued under the more appropriate title "Time Rates of Wages and Hours of Labor in Massachusetts."

The information obtained from officials of local trade unions relates to basic rates and hours of labor, the terms of which in most instances are definitely expressed in joint agreements between employers and employees. These data are presented by industries, trades, and occupations and by municipalities represented. As in former years, data with reference to union rates of wages and hours of labor in Boston, Fall River, Springfield, and Worcester were furnished to the United States Bureau of Labor Statistics for publication in its annual report covering a large number of cities in the United States.

Additional information, obtained from official records of employers, has reference to rates of wages and hours of labor affecting employees in Massachusetts who are engaged in certain classes of public service (federal and municipal), communication (steam railroads, street and electric railways, railway express companies, and passenger bus companies), and telephone service.

Monthly Surveys and Press Notices

Introductory. In a press notice issued in November, 1922, having reference to the "Monthly Survey" of employment and earnings of wage-earners in the manufacturing industries in Massachusetts, which was first undertaken by the Department of Labor and Industries in September, 1922, it was stated that:

> "It is the purpose of this Department to increase the list of establishments to be canvassed and, as opportunity affords, to add industries other than manufacturing, so that eventually all important industries and trades in the State will be represented."

That purpose has been realized by the extension of the scope of the monthly surveys from a small beginning in September, 1922, when reports were received from only 202 manufacturing establishments in which 120,804 wage-earners were employed, to a total of 7,726 reports received in December, 1932, representing all important fields of employment in the State and covering 333,480 wage-earners. This increase in the number of reports and in the number of wage-earners covered was, in part, made possible by the passage of a special act (Chapter 14, Acts of 1931) which made available additional funds, in the amount of $17,740, for this specific purpose. After the establishment of an adequate reporting list of employers, it was possible to continue the work at relatively small cost.

In nearly all of these surveys this Department cooperates with the United States Bureau of Labor Statistics, thereby avoiding duplication of work in the collection of pay roll data by the two governmental agencies. The federal bureau has granted to this department the franking privilege in connection with a large part of this work, and the postage expense on account of the remainder is relatively small.

In Table 2 data are presented showing, for each industrial group covered by the survey, the year and month in which the survey was first undertaken, and (as of December, 1932) the approximate size of the sample canvassed, the number of establishments and wage-earners covered, the index numbers of employment and of wages paid, and the base year or base period to which the index numbers relate.

Table 2.—Coverage of Monthly Surveys of Employment and Earnings in Representative Establishments in Massachusetts, December, 1932: By Industrial Groups: With Index Numbers of Employment and Wages Paid

Industrial Groups	Survey First Undertaken (Month–Year)	Approximate Size of Sample (%)	Number Covered, December, 1932		Index Numbers		Base Period
			Establishments	Wage-earners	Employment	Wages Paid	
Manufacturing	*Sept. 1922*	*40.0*	*1,101*	*152,032*	*56.8*	*40.4*	*1925–1927*
Wholesale and Retail Trade	*Nov. 1929*	*40.0*	*4,577*	*76,465*	*96.6*	*83.0*	*Sept. 1931*
Wholesale trade	Aug. 1931	30.0	654	13,466	81.7	72.3	Sept. 1931
Retail trade	Aug. 1931	45.0	3,923	62,999	100.5	89.5	Sept. 1931
Public Utilities	*Jan. 1929*	*95.0*	*139*	*45,677*	*79.1*	*69.6*	*1930*
Steam railroads	Jan. 1929	100.0	6	21,136	73.1	62.7	1930
Street and electric railways	Jan. 1929	95.0	15	10,332	83.8	73.4	1930
Passenger bus companies	April 1931	90.0	28	1,176	94.2	82.2	1930
Gas and electric companies	Jan. 1929	95.0	90	12,983	86.1	77.8	1930
Construction	– –	*35.0*	*829*	*6,599*	[1]	[1]	[1]
Building construction	April 1927	25.0	740	4,526	30.8	18.8	1928
Highway construction	June 1931	90.0	89	2,073	30.0	23.0	Sept. 1931
Municipal Employment	*April 1931*	*70.0*	*99*	*23,278*	*84.6*	*75.5*	*Sept. 1931*
Agricultural Employment	*Sept. 1931*	*5.0*	*85*	*989*	*49.7*	*34.6*	*Sept. 1931*
Amusement and Recreation	*March 1931*	*25.0*	*67*	*1,567*	*63.0*	*61.9*	*Sept. 1931*
Clubs and Associations	May 1932[2]	20.0	17	546	[1]	[1]	[1]
Theatres	May 1932[2]	30.0	50	1,021	[1]	[1]	[1]
Hotel Employment	*March 1931*	*35.0*	*84*	*5,074*	*84.0*	*76.1*	*Sept. 1931*
Hotels	Sept. 1932[2]	35.0	84	3,588	[1]	[1]	[1]
Hotel restaurants	Sept. 1932[2]	35.0	30	1,486	[1]	[1]	[1]
Institutional Employment	*May 1932*	*30.0*	*53*	*4,372*	[1]	[1]	[1]
Hospitals	March 1931	25.0	30	3,045	98.5	95.6	Sept. 1931
Schools and colleges	March 1931	50.0	23	1,327	96.0	65.0	Sept. 1931
Office Employment	*May 1932*	*30.0*	*371*	*9,921*	[1]	[1]	[1]
Banks and trust companies	March 1931	40.0	180	3,324	91.4	87.4	Sept. 1931
Insurance companies and agencies	March 1931	40.0	111	5,135	99.6	101.5	Sept. 1931
Miscellaneous companies	March 1931	15.0	80	1,462	[1]	[1]	[1]
Personal Services	*May 1932*	*35.0*	*224*	*5,077*	[1]	[1]	[1]
Dyers and cleansers	March 1932	75.0	121	1,625	[1]	[1]	[1]
Laundries	March 1931	30.0	103	3,452	96.3	82.8	Sept. 1931
Trucking and Handling	*March 1931*	*25.0*	*97*	*2,429*	*77.6*	*69.1*	*Sept. 1931*
Express and transfer companies	May 1932[2]	25.0	26	599	[1]	[1]	[1]
Teaming, trucking, and handling	May 1932[2]	25.0	71	1,830	[1]	[1]	[1]
All Industrial Groups Combined	– –	30.0	7,726	333,480	[1]	[1]	[1]

[1] No index numbers were computed for this group.
[2] Group sub-divided beginning with returns for date shown.

The chronological order in which the surveys were first undertaken was as follows:

1922, September. Manufactures (coverage greatly increased, 1923-1926).

1927, April. Building construction.

1929, January. Public utilities (steam and electric railways and gas and electric companies).

1929, November. Wholesale and retail trade.

1931, March. Amusement and recreation, banks and trust companies, hospitals, schools and colleges, hotel employment, insurance companies, laundries, miscellaneous office employment, and trucking and handling.

1931, April. Municipal employment, and passenger bus companies.

1931, June. Highway construction.

1931, August. Wholesale and retail trade (coverage increased and two branches separately shown).

1931, September. Agriculture.

1932, March. Dyers and cleansers.

1932, May. Clubs and associations, and theatres (coverage increased and two classes formerly included under "amusement and recreation" separately shown).

1932, May. Express and transfer companies, and teaming, trucking and handling (coverage increased and two classes separately shown).

1932, September. Hotels, and hotel restaurants (coverage increased and hotel returns sub-divided so as to show hotel restaurants separately).

In 1931, as shown in the statement above, the surveys were extended to include all important fields of employment in Massachusetts not previously canvassed. In 1932, attention was given particularly to improving the list of representative reporting agencies and to increasing the coverage, so as to secure wherever possible, a representation of at least 40 per cent of the total number of wage-earners employed in each important industrial and business group. For several groups, such as public utilities (steam railroads, street and electric railways, passenger bus companies, gas and electric companies) and highway construction, a comparatively small number of reports furnishes a representation of 90 per cent or more. On the other hand, in some lines of employment it is not feasible to attempt to secure a 40 per cent representation, or "sample", because the number of persons employed by individual employers in most instances is so small that an inordinately large number of reports would be required to furnish a 40 per cent representation; in agriculture, for example, there are very few farms, market gardens, dairies, etc., where as many as five persons are employed throughout the year in agricultural labor, and consequently the representation thus far secured is only about five per cent.

The questionnaires used in connection with these surveys are simple in form and so devised that the information called for can readily be entered from the employers' pay rolls. The questionnaire used in securing information relative to manufactures, wholesale and retail, office employment, agriculture, and miscellaneous employment is a "six-month form", which provides spaces for entries for the pay roll period, including the 15th of the month, for each of six months. This form is returned to the employers each month for the addition of pay roll data for the next pay roll period. For public utilities three one-month forms are used, each calling for certain details relating to the particular class of public utility to which it applies. For building and highway construction a one-month form has been so devised that contractors may furnish information by projects and their locations, which usually vary from month to month. The form used in obtaining pay roll data from municipalities provides

for reports by departments, separately, because in some municipalities there is no central office where pay roll records for all departments are on file; also this form provides for a separate reporting of pay rolls for two classes of employees.

With the questionnaire there is sent to reporting employers each month a mimeographed press notice summarizing the returns for the previous pay roll period, in order that they may compare the trends of employment and wages in their own plants with the corresponding trends for all reporting establishments in the same or closely allied industry or business in which they are engaged. These press notices are also sent to a large number of organizations and individuals who have requested them.

A list, descriptive, as of December, 1932, of the nine press notices issued each month, follows:

1. *Manufactures.* 1,101 reports; 152,032 wage-earners; classified by 40 principal industries and 25 leading industrial cities.
2. *Wholesale and Retail Trade.* 1,801 reports; 4,577 outlets; 76,465 wage-earners; classified by 10 principal trade groups, with wholesale and retail sub-divisions.
3. *Building Construction.* 740 reports; 4,526 building tradesmen; classified by seven classes of work.
4. *Highway Construction.* 89 reports; 2,073 workmen.
5. *Public Utilities.* 139 reports; 4 classes of public utilities (6 steam railroads, 15 street and electric railways, 28 passengers bus companies, and 90 gas and electric companies), classified by principal employment groups.
6. *Municipal Employment.* 99 municipalities (36 cities and 63 towns); 23,278 employees; by three classes of employees.
7. *Office and Miscellaneous Employment.* 645 reports; 896 units; 6 principal groups (office employment, amusement and recreation, hotel employment, institutional employment, personal services, and trucking and handling).
8. *Agriculture.* 85 reports; 989 employees; by three classes of employees.
9. *Building Permits.* 55 municipalities (39 cities and 16 towns); classified by three principal classes of projects (residential, non-residential, additions, alterations and repairs), with further sub-divisions.

Index numbers of employment and earnings of wage-earners have been computed for eight major industrial groups and for 13 sub-divisions. These are presented later in this report, in connection with the discussion relative to the several principal employment groups. In computing these index numbers it has not yet been possible to adopt a uniform base period for all of the series because of the comparatively recent extension of the surveys to certain classes of employment, for which data are not available for more than a year or two. The data relative to manufactures are available for each month during a period of ten years, and the three-year period (1925-1927) has been selected as a base period in computing the series of index numbers. For building construction, the year 1928 has been taken as the base year, and for public utilities the base year is 1930. For all other series the single month (September, 1931) has been selected temporarily, as the base month. In the course of a year or two it should be possible to adopt a uniform base period in computing each of the series of index numbers and also to compute a "composite index" covering all principal lines of employment in the Commonwealth.

Manufactures. Approximately 1,100 manufacturing establishments, in which over 150,000 wage-earners are employed, are canvassed each month. The returns cover about 11 per cent of the total number of such establishments and about 40 per cent of the total number of wage-earners employed in manufacturing in the State. Efforts are made to maintain a

list of reporting establishments which shall be truly representative, by industries, by municipalities, and by industries within the principal municipalities.

By means of this survey of *representative* manufacturing establishments it is possible to determine, shortly following the close of each month, the trend of employment and pay rolls during that month in each of the principal manufacturing industries and cities in the State, and also to compute, approximately, in January of each year the average number of wage-earners employed and the total amount of wages distributed during the preceding year. For example, in January, 1932, such computations for the year, 1931, were made, and several months later, when the results of the *exhaustive* annual census of manufactures for the year 1931, became available, it was found that, according to the annual census returns, the average number employed in *all* manufacturing establishments in the State, varied only 2.0 per cent, and the corresponding amount paid in wages varied only 1.6 per cent, respectively, from the earlier estimates based on the monthly survey returns. In each case the estimates were slightly less than the actual census totals, indicating that there was a small "downward bias" in the monthly survey data. In order to correct this downward bias the series of index numbers are adjusted each year in conformity with the latest census returns and such changes are made from time to time in the list of reporting establishments as may be necessary to restore to the list its representative character. It is not possible to maintain an absolutely identical list of reporting establishments for a long period of time, because in the course of a year a few of those reporting either discontinue operations or remove from the State. In such cases others in the same industry and municipality are added to the list to replace those which cease to report. Because of unavoidable changes in the list of reporting establishments, the index numbers are computed by the "link-relative" method.

The results of the monthly survey of manufactures are presented in monthly press notices showing, for 40 principal industries and 25 leading industrial cities, the following data: number of establishments reporting; number of wage-earners normally employed, the number actually employed, and employed on full time; the average weekly earnings of those employed during the pay roll week including the 15th of the current and the next preceding month; and the average weekly earnings for each pay roll period. In addition to the text and detailed tables, there are also included in each issue, a graphic chart, showing the trend of employment and of the total amount of wages paid in all manufacturing establishments combined, a summary table showing percentage changes during the current month for each of the ten leading industries and for each of eleven of the leading cities; and index numbers of employment for all industries combined and for each of 20 leading industries.

Space does not permit of a full presentation in this report of the result of the monthly surveys, but three series of index numbers included in this section of the report show the trend of employment and of average weekly earnings of wage-earners in all manufacturing industries, as a group, and in each of the 20 leading industries in the State, by months, in 1932, with averages[1] for each of the years, 1925-1932, inclusive, and also the trend of employment in each of the 14 leading industrial cities in 1931 and 1932. The index numbers of employment for each of the years 1925-1930, inclusive, were derived from the annual census data, and the index numbers for 1931 and 1932 were derived from monthly survey data. As soon as the *exhaustive* census data become available each year the index numbers based thereon are substituted for the index numbers derived from the *representative* returns. The index numbers representing average weekly earnings are all computed from the monthly

[1] The index numbers, *by months*, for the years 1925 to 1931 were published in the Annual Report of the Division for the year ending November 30, 1931, and are, therefore, not repeated here.

survey data because the annual census schedule does not provide for the reporting, by months, of the pay roll figures.

A series of charts showing, graphically, the trends of employment and average weekly earnings of wage-earners in all manufacturing industries, combined, and in each of the 20 leading industries, by months, during the years, 1925-1932, inclusive, and the trends of employment in the 14 leading industrial cities in 1931 and 1932, by months, appear in the appendix.[1]

The index numbers representing the trend of employment in all manufacturing industries combined and in the 20 principal industries are presented in Table 3.

Table 3 — Index Numbers of Employment in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: By Months, for the Years 1925-1932, inclusive.

Base:—100.0=Average Number of Wage-earners Employed in the Three Year Period—1925, 1926, and 1927.

Sources.—For base period, and for 1928, 1929, and 1930, the Annual Census of Manufactures; for 1931 and 1932, the Monthly Survey of Representative Manufacturing Establishments.

Years and Months	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus, and Supplies	Foundry and Machine-shop Products	Printing and Publishing
Number of Wage-earners[2]	*590,616*	*92,841*	*57,710*	*53,526*	*25,908*	*19,953*	*14,442*
1925	100.1	103.6	99.5	102.5	96.7	97.9	98.5
1926	102.0	98.5	103.5	102.1	107.7	102.3	101.9
1927	97.9	97.9	97.0	95.4	95.6	99.7	99.6
1928	91.6	70.2	96.1	84.5	95.7	99.2	101.3
1929	94.3	76.3	95.5	85.3	111.3	106.5	105.2
1930	81.5	57.9	85.1	65.6	93.5	92.7	104.2
1931	72.0	53.5	83.2	67.2	78.0	71.8	96.6
1932	58.1	39.0	76.9	53.2	51.3	48.3	86.7
1932							
January	62.5	41.1	77.0	57.2	65.2	59.0	93.1
February	65.5	50.1	88.1	60.1	62.5	57.9	91.6
March	64.3	47.7	91.2	56.9	58.0	52.8	91.3
April	58.6	37.2	83.7	42.1	50.7	51.0	89.8
May	54.5	31.2	74.9	36.5	47.2	47.7	88.6
June	51.7	25.5	73.4	36.0	47.9	45.3	87.5
July	48.4	22.1	70.4	43.4	47.3	44.5	83.7
August	54.4	29.9	83.8	57.0	45.0	42.6	82.3
September	59.7	45.0	81.1	64.4	45.7	44.6	82.7
October	62.1	47.1	84.3	64.7	50.1	44.2	82.8
November	59.0	44.7	62.5	60.9	50.2	45.3	83.5
December	56.8	45.9	52.9	59.5	45.6	44.8	82.9

Years and Months	Dyeing and Finishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires and Inner Tubes	Leather-Tanned, Curried and Finished	Hosiery and Knit Goods
Number of Wage-earners[2]	*13,823*	*12,829*	*12,773*	*12,081*	*10,516*	*10,482*	*10,100*
1925	100.4	100.7	107.2	94.3	102.1	99.6	104.5
1926	99.6	102.9	98.8	105.7	99.3	97.7	99.9
1927	100.0	96.4	94.0	100.0	98.6	102.7	95.6
1928	98.6	98.2	81.4	105.2	100.3	104.7	90.0
1929	104.5	96.4	83.0	92.4	92.9	102.2	87.3
1930	94.6	90.4	67.3	68.0	82.3	85.4	80.5
1931	82.5	82.3	56.4	49.8	65.1	79.6	77.1
1932	68.1	80.7	42.8	38.3	52.6	67.3	72.2
1932							
January	70.2	79.3	55.3	44.4	56.4	65.8	72.5
February	82.3	85.6	54.6	36.1	57.6	68.2	73.7
March	81.5	84.1	51.7	36.1	56.3	67.0	73.6
April	71.0	82.8	45.8	36.5	51.6	63.2	69.4
May	65.6	80.3	42.0	36.0	51.3	60.0	65.7
June	63.5	74.9	36.2	35.9	52.2	55.4	63.8
July	48.6	75.5	33.3	28.7	51.2	59.7	51.5
August	59.1	77.9	33.8	34.5	48.4	64.4	65.3
September	68.6	84.2	36.1	37.8	51.3	76.4	80.5
October	68.5	84.0	40.1	41.2	52.4	81.0	86.8
November	68.8	81.5	42.1	44.8	52.6	77.5	86.5
December	68.9	78.0	42.2	48.3	49.9	68.8	77.4

[1] See Appendix, pages 127-135, Plates 1-9.

[2] Average number of wage-earners employed in 1925, 1926 and 1927 = 100.

Years and Months	Clothing, Men's	Bread and Other Bakery Products	Confectionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Manufactures	Clothing, Women's
Number of Wage-earners[1]	*9,543*	*8,533*	*8,123*	*8,117*	*7,520*	*6,804*	*6,225*
1925	93.3	98.8	93.9	96.5	92.9	95.5	88.1
1926	102.8	101.9	103.1	104.0	103.8	96.4	100.1
1927	104.0	99.3	103.1	99.5	103.2	108.1	111.9
1928	102.2	102.8	92.2	101.3	101.3	99.7	115.0
1929	100.0	122.0	92.0	105.9	101.8	108.6	121.8
1930	101.1	117.7	80.5	90.6	92.0	83.5	122.2
1931	112.4	109.5	78.3	72.3	84.7	66.1	111.8
1932	79.5	102.4	67.3	55.6	77.7	42.7	84.2
1932							
January	73.0	104.2	80.5	62.9	73.7	64.9	93.0
February	87.2	101.6	71.6	64.2	87.6	56.2	93.2
March	86.8	106.2	66.2	61.6	88.3	55.9	91.5
April	71.0	104.1	63.2	54.9	80.8	52.5	100.1
May	57.3	103.4	55.4	53.8	71.2	47.9	93.2
June	55.2	104.7	54.3	51.5	70.6	32.3	84.2
July	70.6	103.0	29.8	48.3	75.2	27.3	60.2
August	81.6	101.3	63.7	47.6	82.5	27.5	67.0
September	93.0	102.4	72.8	53.3	82.3	34.2	81.3
October	98.8	101.3	87.4	57.7	81.4	40.5	83.5
November	99.0	98.0	86.1	56.8	73.8	37.2	83.1
December	80.8	98.2	76.8	54.1	65.4	35.4	79.8

[1] Average number of wage-earners employed in 1925, 1926 and 1927=100.

On reference to the series of index numbers representing the trend of employment for *all manufacturing industries combined*, (Table 3) marked variations in the index numbers will be observed. The index number for January, 1932, was 62.5; an increase to 65.5 occurred in February; in March there was a small decrease to 64.3; and from then on until the lowest point (48.4) was reached in July, there was a decrease each month. Beginning in August and continuing through October, increases were observed, and for October the index number was 62.1. In November and December decreases again occurred, and in December the index number was 56.8, representing a gain of 8.4 points from the lowest point (48.4) in July. Although much of the loss experienced during the late spring and early summer was regained, nevertheless the average of the index numbers for the year was only 58.1, as compared with 72.0 for 1931.

Of the various manufacturing industries in the State, the manufacture of *cotton goods* was most seriously affected during the past year. The January index number was 41.1, in February it increased to 50.1, which was the high point for the year. Thereafter decreases occurred each month until the low point (22.1) was reached in July. Employment increased somewhat in August, September, and October, reaching 47.1 in October, and there was little change during November and December. The average for the year was 39.0, as compared with 53.5 in 1931.

Of the major industries, the *boot and shoe industry* appeared to have been least adversely affected in 1932. The usual seasonal fluctuations were evident, but the average for the year was 76.9, only a few points below the average (83.2) for 1931. Employment was at its lowest point in December and the highest for the year was 91.2 in March.

In *woolen and worsted goods* manufacturing, employment in 1932 did not show as marked decreases as in cotton goods manufacturing. The index number for January was 57.2, and during February and March it changed only a few points. In April it fell to 42.1, in May to 36.5, and in June to 36.0, the lowest point during the year. Beginning in July and continuing through October there was some improvement, followed by small decreases in November and December. The average for the year was 53.2 as compared with 67.2 in 1931.

In the manufacture of *electrical machinery, apparatus, and supplies* there was a continuous decrease in employment each month, from 65.2 in January to 47.2 in May. Thereafter through the remainder of the year

the monthly fluctuations were not large. The highest point (65.2) was in January and the lowest point (45.0) was in August. The average for the year was 51.3, as compared with 78.0 for 1931.

In the manufacture of *foundry and machine-shop products* there was a continuous decrease in employment each month, from the highest point (59.0) in January to 42.6 in August, the lowest point, and there was very little recovery during the remainder of the year. The average for the year was 48.3, as compared with 71.8 for 1931.

The five major industries discussed above normally provide employment for more than one-half of the total number of wage-earners employed in all manufacturing industries in the State. For the other industries for which index numbers are presented in Table 3, the averages of the monthly index numbers for the year, 1932, ranged in order from highest to lowest, were as follows: bread and other bakery products (102.4); printing and publishing (86.7); women's clothing (84.2); paper and wood pulp (80.7); men's clothing (79.5); boot and shoe cut stock and findings (77.7); hosiery and knit goods (72.2); dyeing and finishing textiles (68.1); leather, tanned, curried and finished (67.3); confectionery (67.3); furniture (55.6); rubber goods, tires and inner tubes (52.6); textile machinery and parts (42.8); silk and rayon manufactures (42.7); and rubber footwear (38.3). The manufacture of bread and other bakery products was the only one of the 20 leading industries for which the average of the monthly index numbers of employment (102.4) was above 100.0 in 1932. In the printing and publishing industry employment was maintained at a fairly high level during 1931 but beginning in February, 1932, and continuing through September there was a decrease each month, with a little improvement reported during the last three months of the year.

The earnings of employees are affected by the continuity of their employment, by part-time employment, and by changes in wage rates. During 1932 there were not only marked curtailments of operations in virtually all industries, but also many reductions in wage rates, and, as a result of these factors, the total *amount* of wages paid in nearly all industries declined to an even greater extent than did the number of persons employed. Thus, for all manufacturing industries combined, there was a decrease of 17.9 per cent in the average number of wage-earners employed in 1932, as compared with the average number employed in 1931, while there was a decrease of 31.3 per cent in the total amount of wages paid to those employed in 1932, as compared with the total amount paid to those employed in 1931.[1] This "spread" became apparent toward the close of 1930, and has since increased each year.

Index numbers representing the trend of average weekly earnings of wage-earners employed in all manufacturing industries combined and in the 20 principal industries are presented in Table 4.

[1] For basic data and index numbers, see Table 4, on pages 96 and 97.

Table 4. — Index Numbers of Average Weekly Earnings in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: By Months for the Years 1925-1932, inclusive.

Base—100.0=Average Weekly Earnings of Wage-earners Employed in the Three Year Period—1925, 1926, and 1927.
Source:—Monthly Survey of Representative Manufacturing Establishments.

Years and Months	All Industries Combined	Cotton Goods	Boots and Shoes (only)	Woolen and Worsted Goods	Electrical Machinery, Apparatus, and Supplies	Foundry and Machine-shop Products	Printing and Publishing
Average Weekly Earnings[1]	*$24.32*	*$19.26*	*$22.59*	*$21.80*	*$29.15*	*$29.87*	*$34.32*
1925	99.4	99.0	99.0	100.9	98.0	101.3	97.4
1926	99.8	98.4	100.9	98.9	101.1	102.9	100.0
1927	100.8	102.6	100.1	100.2	100.9	95.8	102.6
1928	101.4	97.1	98.5	98.8	103.8	97.3	102.9
1929	103.3	99.8	98.4	103.3	108.4	101.0	103.6
1930	96.4	94.1	86.3	95.3	93.9	94.6	102.5
1931	88.3	86.9	77.4	97.1	76.5	79.4	99.7
1932	75.0	70.4	65.7	77.7	63.6	64.3	91.6
1932							
January	80.6	76.7	70.7	88.0	73.5	65.5	97.9
February	81.7	80.0	79.9	90.0	67.2	66.6	95.2
March	81.2	79.7	80.6	84.4	64.7	67.8	96.5
April	77.7	73.1	73.9	71.6	70.0	67.4	94.4
May	74.3	66.4	65.0	69.5	64.2	65.8	91.9
June	72.9	64.9	62.6	69.5	64.1	62.8	90.7
July	71.1	63.1	56.4	70.6	64.1	61.4	88.2
August	72.0	67.3	64.7	77.8	58.5	59.5	89.2
September	74.2	69.1	66.8	80.5	64.0	60.8	91.1
October	73.1	69.2	63.6	79.7	57.7	60.6	87.5
November	70.8	68.5	52.5	75.7	57.7	66.2	87.5
December	70.8	66.8	51.7	75.4	57.6	67.2	89.4

Years and Months	Dyeing and Finishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires and Inner Tubes	Leather-Tanned, Curried and Finished	Hosiery and Knit Goods
Average Weekly Earnings[1]	*$23.25*	*$26.37*	*$27.17*	*$25.34*	*$26.73*	*$26.42*	*$19.40*
1925	99.5	99.0	104.1	100.3	100.9	97.5	98.4
1926	99.0	101.2	97.9	97.5	98.0	101.3	99.3
1927	101.7	99.9	98.0	102.2	101.1	101.2	102.3
1928	100.6	102.8	94.0	99.4	99.7	101.3	106.6
1929	102.1	103.7	104.9	99.3	97.5	104.1	113.6
1930	96.8	96.7	91.0	96.7	91.0	97.2	106.0
1931	96.1	82.0	85.4	81.4	85.1	90.7	98.2
1932	74.9	66.8	67.1	74.4	75.0	79.9	86.0
1932							
January	80.7	70.1	76.0	78.1	80.7	83.9	87.1
February	88.9	74.8	75.2	77.9	81.4	84.4	91.8
March	85.0	74.5	72.3	77.9	81.0	83.5	91.7
April	71.9	72.6	68.1	78.4	74.7	79.8	86.4
May	68.3	69.6	62.6	74.0	69.6	74.7	79.4
June	65.9	63.2	53.8	68.1	74.7	84.7	78.8
July	66.7	61.0	57.3	67.7	74.6	74.6	74.9
August	71.1	63.2	56.7	71.4	71.7	78.4	80.9
September	78.4	62.8	66.1	73.0	74.4	82.2	91.6
October	76.4	63.7	73.6	73.6	73.8	81.7	94.1
November	72.0	64.6	68.9	76.1	73.5	77.9	88.5
December	73.3	61.3	74.1	76.1	70.0	73.5	86.5

[1] The average weekly earnings in 1925, 1926 and 1927 = 100.

Years and Months	Clothing, Men's	Bread and Other Bakery Products	Confectionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Manufactures	Clothing, Women's
Average Weekly Earnings[1]	*$20.95*	*$23.85*	*$18.76*	*$26.24*	*$21.28*	*$22.84*	*$20.47*
1925	98.9	97.7	97.6	97.4	98.5	100.3	99.9
1926	101.1	101.6	99.6	99.7	100.1	100.1	98.9
1927	100.0	100.7	102.8	102.9	101.4	99.6	101.2
1928	96.1	98.6	101.4	103.1	99.4	94.7	100.4
1929	95.1	96.3	98.7	103.5	102.1	95.8	98.4
1930	88.1	98.4	97.9	98.9	95.4	84.0	97.5
1931	78.7	98.0	87.5	86.1	90.8	77.7	88.8
1932	69.0	89.1	76.2	70.9	81.5	58.5	70.3
1932							
January	69.5	92.1	87.5	77.5	90.3	59.2	75.5
February	81.0	95.2	73.9	78.6	93.0	62.1	74.3
March	85.6	93.7	67.7	75.4	91.6	57.7	82.7
April	64.4	90.4	74.8	68.3	84.1	50.5	81.8
May	65.5	88.7	71.7	66.4	80.2	50.6	76.6
June	60.4	88.3	72.8	62.7	80.6	53.6	68.0
July	57.8	88.0	77.5	62.4	80.5	50.5	55.8
August	65.8	85.1	73.5	69.7	81.3	53.8	62.7
September	72.8	88.8	79.9	77.8	80.7	62.6	70.1
October	74.2	86.0	82.6	75.0	78.4	65.0	67.5
November	72.0	87.0	74.9	69.7	65.6	65.6	64.2
December	58.8	86.0	77.6	67.5	72.0	70.3	63.9

[1] The average weekly earnings in 1925, 1926 and 1927=100.

The average weekly earnings of wage-earners employed (all industries combined) in 1932 were less by 25 per cent than the average weekly earnings for the three-year base period, 1925-1927, and were less by 15.1 per cent than the average for 1931. The index number in February, 1932, was 81.7, the highest reported in any month during the year. From this point there was a continuous decrease each month until July, followed by small increases in August and September and by decreases in October and November. The lowest point (70.8) was recorded in November and December.

The index numbers representing the average weekly earnings of wage-earners in 1932 in the 20 leading industries, arranged in order from the highest to the lowest, were as follows: printing and publishing (91.6); bread and other bakery products (89.1); hosiery and knit goods (86.0) boot and shoe cut stock and findings (81.5); leather, tanned, curried and finished (79.9); woolen and worsted goods (77.7); confectionery (76.2); rubber goods, tires and inner tubes (75.0); dyeing and finishing textiles (74.9); rubber footwear (74.4); furniture (70.9); cotton goods (70.4) women's clothing (70.3); men's clothing (69.0); textile machinery and parts (67.1); paper and wood pulp (66.8); boots and shoes (65.7); foundry and machine shop products (64.3); electrical machinery, apparatus and supplies (63.6); and silk and rayon manufactures (58.5). Of the employees in the 20 industries specified, those employed in the printing and publishing industry suffered the least decrease in earnings, amounting to only 8.4 per cent, as compared with the weekly earnings during the three-year base period, 1925-1927, while those employed in the silk and rayon manufacturing industry suffered the largest relative decrease (41.5 per cent) on the same basis of comparison.

There are presented, in Table 5, index numbers representing the average number employed in each of the years 1925 to 1931, inclusive, in each of 14 of the leading industrial cities in Massachusetts and also index numbers for each month in 1931 and 1932. The annual index numbers were derived from data obtained in connection with the annual census of manufactures, and the monthly index numbers for 1931 and 1932 were derived from data obtained in connection with the monthly survey of *representative* manufacturing establishments. As soon as the returns for the annual census for 1932 become available the index numbers derived from the *exhaustive* census returns can be substituted for those derived from the monthly survey data.

Table 5. — Index Numbers of Employment in 14 Leading Industrial Cities in Massachusetts for the Years, 1925-1932, inclusive.

Base:—100.0=Average Number of Wage-earners Employed in the Three Year Period—1925, 1926, and 1927.

Sources.—For each of the years 1925-1931, inclusive, the Annual Census of Manufactures; for 1932, the Monthly Survey of Representative Manufacturing Establishments.

Years and Months	Boston	Brockton	Cambridge	Chicopee	Fall River	Fitchburg	Haverhill
Number of Wage-earners[1]	*78,364*	*12,682*	*21,859*	*10,171*	*31,146*	*8,411*	*11,080*
1925	98.7	103.8	100.4	103.6	98.2	105.5	104.0
1926	102.9	100.6	103.9	102.4	100.7	100.0	107.5
1927	98.4	95.6	95.7	94.0	101.1	94.5	88.5
1928	96.3	95.7	97.7	103.1	82.0	76.7	87.2
1929	97.7	99.3	100.6	105.8	84.3	78.2	75.5
1930	87.4	92.2	88.6	80.4	68.5	68.7	72.9
1931	74.1	84.0	73.8	64.2	70.8	60.5	64.4
1932	59.4	78.2	62.3	51.6	53.7	57.8	48.1
1931							
January	76.1	97.6	77.4	76.1	65.4	57.1	71.4
February	78.4	100.6	76.6	63.8	64.1	58.2	83.1
March	78.0	100.4	76.3	71.9	68.8	61.2	87.2
April	75.2	99.0	75.3	72.8	81.4	60.3	77.3
May	75.3	67.1	74.7	69.3	82.3	62.3	78.5
June	72.9	70.9	74.7	70.8	82.5	67.1	59.8
July	68.6	95.1	70.3	68.8	83.1	63.4	48.8
August	70.6	94.6	73.3	57.6	82.3	61.5	67.4
September	74.8	91.2	74.3	57.3	66.7	60.3	62.6
October	75.6	85.5	71.9	55.5	49.9	58.8	54.8
November	73.7	48.1	70.2	52.8	59.7	55.4	40.2
December	69.7	57.9	71.0	53.4	63.3	60.8	41.3
1932							
January	66.7	87.2	64.2	62.4	58.7	57.8	39.3
February	66.0	89.8	63.4	63.4	70.7	57.5	57.2
March	65.1	90.3	64.1	63.4	63.5	58.1	60.8
April	61.4	78.8	63.6	56.3	42.6	56.7	50.6
May	58.6	68.2	62.3	48.4	34.8	55.2	45.2
June	54.6	67.9	61.9	43.6	35.2	56.2	45.9
July	48.0	82.9	57.8	46.3	39.3	51.4	43.2
August	54.6	86.2	59.1	45.2	46.9	59.0	53.1
September	58.7	75.5	63.0	44.0	63.3	62.8	52.3
October	61.4	81.1	66.5	47.6	62.7	59.9	50.0
November	59.3	73.2	62.7	49.0	59.5	58.1	42.9
December	58.4	57.5	59.4	50.0	67.3	60.5	36.8

Years and Months	Holyoke	Lawrence	Lowell	Lynn	New Bedford	Springfield	Worcester
Number of Wage-earners[1]	*16,499*	*25,983*	*20,405*	*20,551*	*35,308*	*17,989*	*31,047*
1925	103.0	101.1	105.7	92.2	101.1	98.3	100.3
1926	98.9	103.1	102.2	106.8	99.5	108.4	101.9
1927	98.1	95.8	92.1	101.0	99.4	93.3	97.8
1928	88.7	81.0	84.5	97.7	60.2	99.2	96.9
1929	83.5	89.1	83.8	99.8	91.1	103.6	102.8
1930	69.5	79.2	68.5	86.1	72.9	86.8	88.7
1931	62.8	90.4	67.2	76.3	66.7	77.5	77.2
1932	55.2	60.8	58.4	55.5	50.2	58.8	60.6
1931							
January	63.9	94.7	57.4	75.5	65.8	77.8	79.3
February	62.7	100.3	63.0	79.6	74.2	80.1	79.5
March	66.4	104.6	66.5	74.1	75.3	85.1	80.9
April	67.8	108.0	68.2	80.8	75.9	87.3	80.4
May	69.1	105.2	71.0	79.5	74.7	82.6	82.0
June	66.3	109.3	67.2	75.6	67.2	80.7	79.5
July	63.6	123.6	70.5	77.5	65.0	75.3	78.2
August	62.7	122.8	73.8	78.8	67.2	72.7	75.9
September	59.9	121.0	74.5	79.2	65.6	71.3	75.7
October	57.6	26.6	68.6	72.1	57.1	73.8	74.6
November	57.5	26.9	65.1	69.2	57.0	73.7	72.8
December	56.0	42.3	60.3	63.7	55.5	70.0	67.8
1932							
January	57.3	64.8	60.8	68.0	52.3	63.4	63.4
February	60.0	73.5	66.0	72.6	57.2	64.0	63.8
March	58.0	78.6	66.2	68.6	55.2	62.9	61.6
April	56.3	66.2	55.0	61.4	49.2	62.0	60.1
May	53.5	54.5	49.2	57.0	40.8	59.4	58.9
June	48.9	49.1	51.4	50.0	30.7	59.5	58.1
July	45.3	51.5	49.0	50.3	38.5	53.5	57.5
August	45.9	57.2	65.3	53.8	43.4	51.7	59.4
September	57.9	63.6	69.6	52.2	56.7	54.5	61.1
October	61.2	60.1	71.3	52.2	62.1	58.1	63.5
November	59.4	55.8	53.7	42.1	59.7	58.8	62.6
December	59.0	55.2	55.1	37.2	56.5	58.2	57.6

[1] Average number of wage-earners employed in 1925, 1926 and 1927=100.

Of the 14 cities for which index numbers are presented in Table 5, Brockton showed the smallest percentage decrease in employment in 1932, based on the average number employed during the three-year base period, 1925-1927. The averages of the monthly index numbers representing employment in 1932 for the 14 cities, arranged in order from the highest to the lowest were as follows: Brockton (78.2); Cambridge (62.3); Worcester (60.6); Lawrence (60.8); Boston (59.4); Springfield (58.8); Lowell (58.4); Fitchburg (57.8); Lynn (55.5); Holyoke (55.2); Fall River (53.7); Chicopee (51.6); New Bedford (50.2); and Haverhill (48.1).

The percentage decreases in the average number employed in 1932, as compared with the average number employed in 1931, in the several cities, were as follows: Lawrence, 32.7; Lynn 27.3; Haverhill, 25.3; New Bedford, 24.7; Fall River, 24.2; Springfield, 24.1; Worcester, 21.5; Boston, 19.8; Chicopee, 19.6; Cambridge, 15.6; Lowell, 13.1; Holyoke, 12.1; Brockton, 6.9; and Fitchburg, 4.5.

Wholesale and Retail Trade. The collection of monthly pay roll data from wholesale and retail trade establishments was first undertaken by the Division in November, 1929. The survey has since been greatly extended in scope, and in December, 1932, 1,801 reports were received, covering 4,577 stores, in which 76,465 wage-earners were employed. The number of wage-earners covered constituted approximately 30 per cent of the total number employed in all wholesale and retail stores in the State, and is believed to be a truly representative sample.

The results of the monthly survey are made public in monthly press notices, showing the number of reports received, the number of stores reported for, the number of wage-earners employed, and the amount distributed in wages for each of ten principal trade groups, with a further classification by wholesale, retail, and chain stores, where such classification is applicable. Data are also presented for 11 cities which are important trading centers. For several groups of "chain" stores a separate tabulation of the returns by cities is not possible, but the omission of these returns from the tabulation by cities does not greatly impair the comparability of the results.

Information in detail is not presented in this report, but two series of index numbers[1] and two groups of charts[2] showing the trends of employment and amount of wages paid for the principal trade groups, during the period September, 1931 to December, 1932, are here included. Because of unavoidable changes which occur in the list or reporting establishments the index numbers have been computed by the "link-relative" method, and in order that they may be directly comparable with index numbers for other classes of employment which were added to the monthly surveys in 1931, the returns for the month of September, 1931, have been taken as the base (100) in computing the index numbers.

[1] See Tables 6 and 7.
[2] See Appendix, pages 136 and 137, Plates 10 and 11.

Table 6. — Index Numbers of Employment in Wholesale and Retail Trade —All Trade Groups and Each of Eleven Leading Groups; By Months; September, 1931 - December, 1932

(Base — September, 1931 = 100.0)

Years and Months	All Trade Groups			Automobiles Accessories Gas and Oil Retail	Candy, Soda, and Drugs Retail	Department and Dry Goods Stores	
	Wholesale Trade	Retail Trade	Combined			"Chain"	Independently Owned
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	97.1	102.0	101.0	99.1	101.9	105.5	100.2
November	94.8	101.6	100.2	94.1	100.0	105.6	104.5
December	93.8	110.0	106.7	92.2	102.1	126.7	129.0
1932							
January	87.9	96.7	95.0	87.2	94.1	101.6	96.9
February	87.5	94.6	93.2	85.9	93.5	99.7	93.3
March	87.2	94.6	93.1	85.8	94.9	112.3	91.6
April	86.0	94.3	92.5	87.0	95.0	101.6	94.3
May	85.9	93.2	91.6	86.1	93.6	108.1	91.8
June	85.8	92.3	90.9	83.3	91.4	102.3	90.4
July	85.1	89.0	88.1	82.0	88.4	99.9	87.7
August	84.1	86.1	85.5	78.6	85.7	95.0	82.0
September	85.4	89.1	88.2	77.3	90.2	95.3	86.8
October	85.8	92.9	91.4	77.2	91.6	112.5	93.0
November	84.1	91.9	90.3	76.8	91.9	101.7	93.9
December	81.7	100.5	96.6	76.2	93.0	130.8	116.3

Years and Months	Fuel and Ice Retail	Groceries, Provisions, Meats and Fish			Lunch Rooms and Restaurants		Wearing Apparel and Accessories Retail
		Wholesale	Retail "Chain" Stores	Retail Independently Owned	"Chain"	Independently Owned	
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	115.9	98.3	99.6	99.3	101.2	106.1	103.1
November	113.9	96.6	98.8	97.7	100.7	101.1	103.0
December	114.5	95.8	100.4	97.1	103.4	98.5	116.8
1932							
January	116.2	88.8	99.7	92.2	100.4	96.4	95.0
February	113.9	88.9	98.8	93.2	102.1	93.3	90.3
March	116.5	88.6	95.8	92.8	102.0	94.0	91.1
April	100.7	87.4	95.6	92.5	100.7	94.9	93.1
May	95.6	86.8	96.3	93.2	100.7	93.5	90.0
June	91.1	86.2	97.2	92.5	97.9	92.1	94.2
July	87.6	86.6	96.9	90.3	95.7	86.9	86.6
August	85.3	86.4	96.7	89.2	95.1	83.4	82.6
September	94.3	85.4	95.7	92.3	96.5	86.9	88.4
October	106.7	86.3	95.0	93.1	96.1	86.6	93.1
November	103.4	85.4	93.5	92.5	95.0	86.0	94.2
December	113.3	83.9	93.5	92.8	93.8	85.5	106.7

A comparison of the index numbers of employment in Table 6 shows that during the year 1932 employment in the several branches of retail trade, considered as a single group, was maintained at a generally higher level than employment in wholesale trade. *Retail trade* is subject to more marked fluctuations in employment than wholesale trade, largely because of seasonal conditions affecting the sales, principally by department, dry goods, and wearing apparel stores. For example, in 1931 there was an increase in employment in retail stores from 100.0 in September, 1931, to 110.0 in December, 1931, and an increase in 1932 from the lowest point, 86.1 in August, to 100.5 in December. Notwithstanding the large seasonal increase during the last four months in 1932, the index of employment (100.5) in December, 1932, was about 10 per cent below that in December, 1931 (110.5). Employment in *wholesale trade* gradually decreased each month, from 100.0 in September, 1931, to 84.1 in August, 1932, followed by a slight improvement in September and October, and by a decline to 84.1 in November, and to 81.7 in December.

Of the 11 principal trade groups, the chain department and dry goods stores, the retail distributors of fuel and ice, the chain grocery, provision, meat, and fish stores, and the chain lunch rooms and restaurants maintained a generally higher level of employment in 1932 than any of the other trade groups, and the retail distributors of automobiles, accessories, gas, and oil were more seriously affected by unemployment than any of the other 10 trade groups specified.

Very marked seasonal fluctuations in employment occurred in the retail distribution of fuel and ice, and large numbers were added to the force of employees in October, and were continued in employment until April, when they were laid off for several months.

The retail department and dry goods stores, both chain and independently owned, and the retail wearing apparel and accessory stores also showed marked seasonal fluctuations in employment, with large increases in December of each year, as a result of Christmas trade, and with marked decreases in employment, particularly in July and August.

Index numbers representing the amount of wages paid to employees in wholesale and retail trade for the principal trade groups are presented in Table 7. The returns for the month of September, 1931, have been taken as the base (100) in computing this series.

Table 7.—Index Numbers of Total Wages Paid in Wholesale and Retail Trade—All Trade Groups and Each of Eleven Leading Groups; By Months; September, 1931 - December, 1932

(Base — September, 1931 = 100.0)

Years and Months	All Trade Groups			Automobiles Accessories Gas and Oil Retail	Candy, Soda, and Drugs Retail	Department and Dry Goods Stores	
	Wholesale Trade	Retail Trade	Combined			"Chain"	Independently Owned
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	97.1	101.1	100.0	95.9	100.9	101.7	100.8
November	94.6	100.6	99.0	90.5	104.3	104.0	104.7
December	93.6	106.3	103.1	90.2	106.9	125.8	123.2
1932							
January	86.8	93.5	91.9	84.3	89.5	101.1	94.0
February	85.4	90.6	89.4	82.4	89.3	95.4	87.7
March	84.1	91.0	89.3	83.6	88.6	94.6	89.8
April	81.9	89.8	87.9	84.4	89.0	92.5	89.6
May	81.0	87.0	85.5	82.2	87.7	88.8	87.6
June	79.5	84.8	83.4	78.1	83.3	86.2	84.2
July	78.3	80.8	80.1	73.1	79.4	87.4	79.1
August	76.4	77.6	77.2	69.2	76.4	81.1	75.8
September	77.5	81.0	80.0	68.2	79.8	74.9	86.0
October	76.0	84.5	80.4	65.9	81.4	80.3	86.4
November	74.0	84.2	79.7	65.4	81.5	80.0	87.9
December	72.3	89.5	83.0	64.1	83.5	103.7	102.6

Years and Months	Fuel and Ice Retail	Groceries, Provisions, Meats and Fish			Lunch Rooms and Restaurants		Wearing Apparel and Accessories Retail
		Wholesale	Retail				
			"Chain" Stores	Independently Owned	"Chain"	Independently Owned	
1931							
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	111.9	97.5	99.2	100.2	102.0	102.4	103.0
November	107.8	95.9	98.7	98.5	104.6	98.5	103.1
December	117.8	95.6	99.4	98.0	105.8	94.3	110.5
1932							
January	113.4	88.1	94.3	92.0	100.4	93.1	93.6
February	113.5	87.3	93.5	92.3	100.1	91.1	88.8
March	118.4	86.0	93.3	90.5	99.2	90.6	88.5
April	96.7	84.2	92.9	90.4	93.8	90.6	90.6
May	79.8	82.7	92.3	89.7	93.8	87.7	86.2
June	74.0	81.1	92.6	89.3	90.7	84.2	86.4
July	75.0	80.3	90.4	87.1	87.3	78.1	80.0
August	68.1	78.9	89.3	84.5	86.5	74.4	76.4
September	82.6	78.3	88.9	85.8	88.5	76.9	80.1
October	86.6	77.7	87.8	87.0	87.5	78.9	83.2
November	88.5	76.1	86.7	85.4	86.5	77.2	83.2
December	100.6	75.6	86.3	85.1	85.2	74.9	91.2

For wholesale trade the index numbers representing total amount of wages paid, showed a decrease each month from 100.0 in September, 1931, to 76.4 in August, 1932, followed by a slight increase to 77.5 in September, and thereafter by further decreases until the lowest point, 72.3, was reached in December, 1932. In retail trade the reduction in the amount of wages paid was proportionately less than in wholesale trade, and the effect of seasonal conditions was much more evident, particularly in December of 1931 and 1932, as a result of the Christmas trade. In January, 1932, many of those who had been employed temporarily in December, 1931, were dismissed, and the force was further reduced during succeeding months until the lowest point, 77.6, was reached in August.

In general the fluctuations in the amount of wages paid in the principal trade groups corresponded closely with the fluctuations in the number of persons employed from month to month, except that when the regular force of employees was supplemented with additional employees for temporary sales, the increases in the amount of wages paid were not proportionately as large as the increases in the number of persons employed, indicating that sales people employed temporarily are not as well compensated as those who are permanently employed.

Of the several trade groups, the department and dry goods stores and the retail distributors of fuel and ice maintained a generally higher level of wage payments than did any of the other trade groups, and the reduction in the pay rolls of the retail distributors of automobiles, accessories, gas, and oil was much more marked than in any other of the ten trade groups specified.

Building Construction. The collection of monthly pay roll data from building contractors was first undertaken by this Division in April, 1927. The information called for included the following items: number of building tradesmen employed during the week including the 15th of the month; total number of hours worked, and the amount paid in wages. Reports were received each month in 1932 from about 750 building contractors who employed, in June, nearly 7,000 building tradesmen, or approximately 25 per cent of the total number of building tradesmen employed in the State. Nearly all of the important general contractors and sub-contractors in the building industry are included in the list of those reporting each month. Pay roll data are furnished by individual projects, or groups of projects within a single city or town, and the returns are presented in the monthly press announcements, by classes of work done, and also by principal cities and towns. The amount of building construction in the several municipalities varies greatly from month to month, even though the totals for the State may not show any marked changes.

The number of new building projects in 1932 was so limited that many contractors who, in normal times, employ a large force of workmen on new projects, found their operations confined largely to alteration and repair work. It has not been possible to obtain reports which fully cover those employed on such work, but, presumably, many building tradesmen for whom no records appear in this survey, were intermittently employed in 1932.

Beginning with the returns for May, 1932, the data were tabulated so as to show, by type of work, the number of man-hours worked and the earnings of those employed, which additional information added to the value of the returns as formerly presented.

The series of index numbers computed by the "link-relative" method, showing the trends of employment, man-hours worked, amount paid in wages, and other items for each month in 1931 and 1932, are presented in Table 8. The index numbers for prior months, beginning with April, 1927, have already been published, and are not included in this table. A chart,[1] showing the trends of employment, total wages paid, and man-hours worked in the building construction industry, by months, during the period, April, 1927 to December, 1932, appears in the appendix.

[1] See Appendix, page 138, Plate 12.

Table 8.—Index Numbers of Employment and Earnings of Building Tradesmen in Massachusetts as Reported by Building Contractors[1]

(Average for Year 1928 = 100.0)

Months	Number of Tradesmen	Number of Man-hours	Amount Paid in Wages	Average Weekly Hours per Man	Average Weekly Earnings per Man	Average Hourly Earnings per Man
1931						
January	68.4	62.4	67.7	91.2	99.0	108.5
February	63.3	56.2	61.7	88.8	97.5	109.8
March	60.4	54.6	69.7	90.4	98.8	109.3
April	68.3	63.7	66.2	93.3	96.9	103.9
May	68.5	61.7	62.5	90.0	91.2	101.3
June	70.2	60.4	59.9	86.1	85.2	99.0
July	70.7	67.0	67.9	94.8	96.0	101.3
August	73.1	65.7	67.3	89.9	92.1	102.4
September	74.9	67.1	69.1	89.6	92.3	103.0
October	65.9	54.6	53.6	82.9	81.3	98.2
November	62.5	54.2	52.7	86.7	84.3	97.2
December	54.9	45.9	45.5	83.6	82.9	99.1
Average, 1931	*66.8*	*59.5*	*62.0*	*88.9*	*91.5*	*102.8*
1932						
January	44.2	34.6	34.4	78.3	77.8	99.4
February	38.6	28.7	28.1	74.4	72.8	97.9
March	38.1	28.4	27.8	74.4	73.0	97.9
April	44.0	33.0	31.0	75.0	70.5	93.9
May	47.8	39.9	35.4	83.5	74.1	88.7
June	46.8	37.1	32.9	79.5	70.2	88.4
July	43.9	35.3	31.0	80.4	70.6	87.8
August	40.7	32.6	28.2	80.2	69.3	86.5
September	40.0	33.4	30.0	83.5	75.0	89.8
October	40.7	31.9	27.5	78.4	67.6	86.2
November	38.4	28.9	24.3	75.3	63.3	84.1
December	30.8	21.8	18.8	70.8	61.0	86.2
Average, 1932	*41.2*	*32.1*	*29.2*	*77.8*	*70.4*	*90.6*

[1] This survey was first undertaken in April, 1927.

On reference to Table 8 it will be observed that the index number representing employment of building tradesmen in 1932 (based on the average for the year, 1928=100), reached the lowest point (30.8) in December, 1932, and that the average of the monthly index numbers for the year 1932 (41.2) fell far below the corresponding index number (66.8) for the year 1931. The number of man-hours worked in 1932 decreased to a greater extent than did the number of men employed. The average for 1932 was 32.1, as compared with the average (59.5) for 1931, while the amount paid in wages showed an even greater decrease in 1932, resulting not only from reductions in the number of persons employed, but also from short-time employment and reductions in the rates of wages paid. The average of the monthly index numbers representing amount paid in wages in 1932 was 29.2, as compared with the average (62.0) in 1931.

The index number representing the average weekly hours worked per man in 1932, based on the average for the year, 1928=100, was 77.8, as compared with 88.9 in 1931. The index number representing the average weekly earnings per man in 1932 was 70.4, as compared with 91.5 in 1931. The average hourly earnings per man in 1932 were not reduced materially during the first three months of the year, but in the spring and early summer months a number of wage reductions became effective, and the index number representing the average hourly earnings per man fell to the lowest point for the year (84.1) in November, 1932, and the average of the monthly index numbers for 1932 was 90.6, as compared with the corresponding average for 1931 (102.8).

Highway Construction. In 1931 the monthly surveys were extended to include highway construction. In 1932 reports were received each month from contractors, varying in number from 76 in January to 91 in October, and the number of workmen employed by them fluctuated greatly, varying from 1,769 in March to 3,909 in July. These reports covered approximately 90 per cent of the total number of workmen employed on all highway construction work done under contract in Massachusetts during the year.

Much additional highway work was undertaken in 1931 by the State, counties and municipalies in Massachusetts, in order to provide work for the unemployed, but in 1932 the appropriations for this purpose were greatly reduced. The extent to which there was a reduction in the number of workmen employed on such work is indicated by the series of monthly index numbers of employment during the period, September, 1931, to December, 1932, presented in Table 9. In computing these index numbers, the number of workmen employed in September 1931 was taken as the base (100).

Table 9.—Index Numbers of Employment of Highway Workmen: By Months, September, 1931—December, 1932

(Base — September, 1931 = 100.0)

Years and Months	Workmen Employed on Public Highway Work by Private Contractors	Manual Workers Employed by City and Town Street, Highway, and Public Works Departments	Both Classes Combined
1931			
September	*100.0*	*100.0*	*100.0*
October	91.4	100.8	98.2
November	76.0	92.6	87.8
December	53.4	83.8	74.7
1932			
January	29.5	85.4	68.4
February	22.0	82.7	64.3
March	21.7	71.2	56.2
April	35.6	74.5	62.6
May	58.4	72.9	68.0
June	56.0	79.0	71.6
July	59.0	80.6	73.6
August	51.8	76.6	68.6
September	45.0	74.6	65.1
October	46.2	68.4	61.2
November	48.1	66.6	60.6
December	30.0	70.2	57.5

According to the index numbers presented in Table 9, there was a decrease in employment of workmen employed on public highway work by contractors, from 100.0 in September to 53.4 in December, 1931, and to 21.7 in March, 1932, the minimum for any month in the year. Some increase in employment during the spring, summer, and early fall was reported, but the highest index number reached was 59.0 in July, and in December it fell to 30.0.

In connection with the survey of municipal employment (discussed later in this report), pay roll data were obtained, showing the number of manual workers employed in the street, highway, and public works departments, and index numbers representing employment of such workmen, are presented in Table 9 for the purpose of comparison with corresponding index numbers, representing employment of workmen on highway work by contractors. The comparison shows that in 1932 there was a large reduction in the number of manual workers employed by the municipalities, but the reduction was by no means as large as the reduction of the number of workmen employed on highway work by contractors. There was a reduction in the number of municipal employees, from 100.0 in September, 1931, to 83.8 in December, 1931, a slight increase in January, 1932 to 85.4, and the lowest point for the year was 66.6 in November.

A combination of the returns for the two classes of workmen (those employed on highway work by contractors and those employed by the municipalities) shows the extent to which employment on highway construction work and maintenance, in general, was reduced in 1932. For the two classes of employees, considered as one group, the index number of employment, based on the returns for September, 1931, (100.0) decreased to 74.7 in December, 1931, and there were further decreases in January, February, and March, reaching the low point, 56.2, in March,

1932. There was some increase in such employment during the summer and fall months, but further reductions occurred during the last three months of the year, and in December, 1932, the index number was 57.5. In general, it may be stated that during the year, 1932, the number of workmen employed on highway construction and maintenance work was reduced by at least one-third, as compared with the number employed during the last four months in 1931.

A chart[1] showing, graphically, the trends of employment of workmen employed on highway work by contractors and of workmen employed by cities and towns on streets, highways, and public works during the period September, 1931 to December, 1932, appears in the appendix.

Public Utilities. Since January, 1929, when the monthly survey of employment by public utility companies was first undertaken, the number of companies reporting has gradually increased. In January, 1932, reports were received from 139 companies, comprising six steam railroads, 15 street and electric railways, 28 passenger bus companies, and 90 gas and electric companies engaged in the production and distribution of gas or electricity, or both. All employees, both manual and clerical (except salaried executives) on the pay rolls of these companies in Massachusetts are included in the reports. The 139 companies reporting in January, 1932, employed 49,310 wage-earners, or approximately 95 per cent of the total number of wage-earners on the pay rolls of all public utility companies in Massachusetts within the four classifications specified. Each of the three steam railroad companies engaged in interstate transportation furnishes pay roll data covering their operations within Massachusetts. The operations of the other three steam railroad companies are wholly within this State.

Two series of index numbers are presented in Table 10, one of which relates to employment and the other to the total amount paid in wages of employees of the four classes of utility companies. The average number employed in 1930 was taken as the base (100.0) in computing these index numbers. Passenger bus companies were first canvassed in April, 1931, and in computing index numbers for these companies the same index numbers as those for street railway companies were taken as the initial index numbers of this series (as of April, 1931) and thereafter the index numbers were separately computed.

A chart[2] showing, graphically, by months, the trends of employment and of total amount of wages paid by public utility companies during the three years, 1930, 1931, and 1932, appears in the appendix.

Table 10.—Index Numbers of Employment by Public Utility Companies and of Weekly Pay Rolls of Such Companies in Massachusetts. 1931 and 1932.

(Average for Year 1930 = 100.0)

Months	All Classes Combined	Steam Railroads	Street and Electric Railways	Passenger Bus Companies	Gas and Electric Companies
1931	Employment				
January	92.4	89.3	96.0	–	95.6
February	92.3	88.6	96.3	–	96.3
March	91.8	88.2	95.4	–	96.0
April	92.3	87.5	96.5	96.5[3]	98.0
May	93.5	89.4	97.4	96.5	98.1
June	90.8	83.9	97.8	101.2	97.7
July	92.3	86.0	99.7	106.0	97.5
August	92.6	87.3	98.1	109.3	97.0
September	92.5	88.3	97.4	106.7	96.1
October	91.0	86.6	95.6	105.2	95.2
November	88.5	82.8	95.6	99.6	93.6
December	86.4	80.2	94.2	95.6	92.1
Average	*91.4*	*86.5*	*96.7*	*100.4*	*96.1*

[1] See Appendix, page 139, Plate 13.
[2] See Appendix, page 140, Plate 14.
[3] See note 1 at end of table.

Table 10 — Continued

Months	All Classes Combined	Steam Railroads	Street and Electric Railways	Passenger Bus Companies	Gas and Electric Companies
	Employment				
1932					
January	85.4	78.8	94.1	92.2	91.5
February	85.1	78.6	94.1	93.3	90.7
March	84.4	78.5	91.7	94.2	90.1
April	83.0	76.1	91.9	95.2	89.6
May	82.8	75.2	92.3	94.5	90.0
June	81.3	72.4	92.9	96.2	89.0
July	80.7	71.7	91.4	99.0	88.9
August	79.1	70.3	89.5	99.7	87.0
September	79.9	72.5	88.7	97.3	86.6
October	79.7	72.8	87.1	94.9	86.5
November	78.9	72.6	84.7	95.0	85.7
December	79.1	73.1	83.8	94.2	86.1
Average	*81.6*	*74.4*	*90.2*	*95.5*	*88.5*
1931	**Weekly Pay Rolls**				
January	91.4	87.6	95.4	–	94.6
February	91.2	86.0	96.5	–	95.5
March	89.8	84.2	94.9	–	95.2
April	91.2	86.2	95.1	95.1[1]	96.8
May	92.0	87.8	96.1	95.4	95.9
June	89.2	81.5	96.7	100.4	96.0
July	90.5	84.0	96.2	107.6	96.4
August	90.8	84.8	95.9	108.2	95.8
September	90.2	85.6	94.5	105.2	93.8
October	87.1	80.4	93.9	103.1	92.2
November	86.1	79.4	94.0	96.7	90.8
December	84.6	76.8	93.8	92.3	90.3
Average	*89.5*	*83.7*	*95.3*	*99.2*	*94.4*
1932					
January	83.1	74.0	94.1	87.4	89.6
February	78.9	66.8	91.7	85.4	89.0
March	78.4	66.9	90.1	85.4	88.4
April	76.6	64.8	89.3	85.4	86.0
May	77.0	65.4	89.3	85.8	86.3
June	73.8	61.2	87.8	84.3	83.3
July	71.6	60.5	81.2	86.5	82.1
August	69.2	58.1	79.2	87.0	79.3
September	69.0	59.3	77.4	87.0	78.0
October	69.1	61.2	75.7	83.6	76.7
November	68.2	60.2	73.5	83.8	77.0
December	69.6	62.7	73.4	82.2	77.8
Average	*73.7*	*63.4*	*83.6*	*85.3*	*82.8*

[1] Passenger bus companies were first canvassed in April, 1931. In computing index numbers for these companies the same index numbers as those for street railway companies were taken as the initial index numbers of this series (as of April, 1931) and thereafter the index numbers were separately computed.

According to the index numbers representing employment by all four classes of public utilities, combined, there was a decrease in 1932 of 10.7 per cent in the average number employed as compared with 1931, and a decrease of 18.4 per cent when compared with the average number employed in 1930 (the base year). In 1931 and 1932 there was a gradual and almost continuous decrease in employment each month, and the lowest point (78.9) was reached in November, 1932.

The number of wage-earners employed by the steam railroad companies constitutes about one-half of the total number employed by all four classes of public utility companies reporting, and has considerable weight in determining the trends of employment and earnings of wage-earners in the four classes combined. The average number of wage-earners employed by the steam railroad companies in 1932 was less by 14.0 per cent than the average number employed in 1931 and was less by 25.6 per cent than the average number employed in 1930. The trend of employment on the steam railroads continued generally downward in 1932 until the low point, 70.3, was reached in August, but there was a slight increase during the remainder of the year.

The street and electric railway employees were less seriously affected by unemployment than were the steam railroad employees but the general trend of employment was downward and the lowest point (83.8) was reached in December, 1932. The average number employed in 1932 was 6.7 per cent less than in 1931, and 9.8 per cent less than in 1930.

The passenger bus companies reduced their force of employees in January, 1932, to the lowest point (92.2) for the year. Thereafter, the number of employees included in the monthly returns increased almost steadily until the high point (99.7) was reached in August, followed by decreases during the remainder of the year. The average of the monthly index numbers in 1932 was 95.5. There was more seasonal fluctuation in this class of employment than in the other groups under consideration.

The number employed by the gas and electric companies changed slightly from month to month in 1932, but the general tendency was downward and the average for the year was less by 7.9 per cent than the average for 1931 and less by 11.5 per cent than in 1930.

The changes in the amount of wages paid to employees of public utility companies were much greater than the changes in employment because of the effect of short-time employment and of reductions in the rates of wages. The largest decreases occurred in February, 1932 affecting, principally, steam railroad employees. Other decreases, at various times during the year, covered very nearly all of the other employees represented in the returns. Several of the gas and electric companies which had put wage reductions into effect earlier in the year later restored the salaries and wages to their former level. For the four classes of public utilities, combined, the total amount paid in wages in 1932 was less by 17.7 per cent than the amount paid in 1931. The steam railroad employees, the total amount of whose wages in 1932 was 24.3 per cent less than in 1931, were most adversely affected. The corresponding decreases in the amount of wages paid to employees in the other three classes were: street and electric railways, 12.3 per cent; passenger bus companies, 14.0 per cent; and gas and electric companies, 12.3 per cent.

Municipal Employment. Beginning with April, 1931, reports relative to employment by municipalities in the Commonwealth have been obtained each month. This survey covers mechanics, workmen, laborers, and other municipal employees, who receive their pay weekly, in accordance with the provisions of General Laws, Chapter 149, Section 148. The pay rolls for manual workers in street, highway, and public works departments of the cities and towns are tabulated separately from the pay rolls for manual workers in other departments, in order to determine the extent to which road construction work by the municipalities has served to relieve unemployment. Pay roll data relative to police, fire, and school departments, and hospitals maintained by public funds are not requested.

In 1932 reports were received each month from nearly 100 municipalities, which together comprise over 80 per cent of the population of the State. In those cities and towns from which reports are not secured, there is a comparatively small number of municipal employees, and their inclusion would not add sufficiently to the value of the survey to warrant their being canvassed each month. In July, 1932, reports received from 100 municipalities covered 26,420 municipal employees, the total amount of the pay roll for whom was $670,728.

Two series of index numbers are presented in Table 11, one of which relates to employment of municipal employees and the other, to the total amount paid in wages, by months, beginning with September, 1931, the returns for which month have been taken as the base, 100, in computing the index numbers. A chart[1] showing the trend of employment and of amount paid in wages in the municipalities, by classes of employment, during the period September, 1931 to December, 1932, appears in the appendix.

[1] See Appendix, page 141, Plate 15.

Table 11.—Index Numbers of Employment and of Amount Paid in Wages in Municipalities: By Specified Classes of Employment, September, 1931 - December, 1932.

(Base — September, 1931 = 100.0)

Years and Months	Manual Workers			Clerical and other Non-manual Employees paid Weekly	Total – All Classes Specified
	Street, Highway, and Public Works Departments	Other Departments	Total, All Departments		
1931		**Employment**			
September	100.0	100.0	100.0	100.0	100.0
October	100.8	103.0	101.6	100.7	101.4
November	92.6	100.8	95.5	98.8	95.9
December	83.8	106.9	91.8	93.9	92.1
1932					
January	85.4	98.2	89.8	102.3	91.8
February	82.7	96.6	87.5	97.1	89.0
March	71.2	94.1	79.0	98.6	82.0
April	74.5	101.3	83.7	100.6	86.3
May	72.9	111.7	86.1	100.8	88.4
June	79.0	110.8	89.9	99.4	91.4
July	80.6	116.3	92.8	104.4	94.6
August	76.6	122.3	92.2	104.7	94.1
September	74.6	116.4	88.9	98.2	90.3
October	68.4	114.1	84.0	99.5	86.3
November	66.6	111.0	81.8	101.4	84.7
December	70.2	104.0	81.8	100.9	84.6
1931		**Amount Paid in Wages**			
September	100.0	100.0	100.0	100.0	100.0
October	94.3	93.8	94.1	102.7	95.5
November	89.7	93.4	90.9	100.5	92.4
December	84.0	102.6	90.4	91.6	90.7
1932					
January	81.4	89.8	84.2	102.9	87.2
February	75.7	83.7	78.4	99.2	81.7
March	69.6	81.8	73.8	100.1	77.9
April	72.0	85.4	76.6	102.7	80.6
May	71.7	95.4	80.0	101.9	83.3
June	74.4	92.0	80.5	100.9	83.6
July	75.0	95.9	82.3	103.7	85.5
August	71.8	96.5	80.4	105.2	84.1
September	69.1	92.1	77.0	100.0	80.5
October	62.4	88.0	71.2	100.1	75.5
November	61.7	86.1	70.1	103.0	75.0
December	64.7	82.5	70.7	102.3	75.5

On reference to the index numbers in Table 11, it will be observed that there were very marked seasonal fluctuations in the numbers of manual workers employed, and that the maximum employment occurred during the spring and summer months, but there was comparatively little change from month to month in the number of persons employed on clerical and other non-manual work, showing that efforts to relieve unemployment were confined almost wholly to the providing of opportunities for the employment of manual labor.

Apparently the appropriations for new highway and other construction work available for expenditure in 1932 were considerably less than the amounts available in 1931, because the number of employees employed in the street, highway, and public works departments, and the total amount paid them in wages were greatly reduced in 1932, in which year the maximum index number representing employment was 85.4 in January, and the maximum index number representing amount paid in wages was 81.4 in January. On the other hand, the number of manual workers employed in other departments increased, particularly during the summer and early fall, indicating that as a result of the reduction in the amount of work available in the street, highway, and public works departments men were temporarily employed in other work, such as in parks, cemeteries, sanitary service, etc. The index number representing employment of manual workers in other departments increased from 94.1 in March, 1932, to the maximum, 122.3, in August, and even in December of that year decreased only to 104.0. The index number representing amount of

pay roll, however, for this class of workers did not change greatly from month to month. It is apparent, therefore, that those added temporarily to the pay roll either were employed only on part time, or received compensation in the form of public welfare aid, which did not appear in the pay rolls as cash payments for services rendered.

Agriculture. The number of persons employed in agriculture in Massachusetts constitutes only slightly over three per cent of the total number of persons gainfully employed in all industries in the State; nevertheless, an endeavor has been made to secure monthly reports from a representative list of employers of agricultural labor. It has not been possible to secure an adequate representation, because the number of farms, market gardens, dairies, etc., in connection with which three or more persons are employed, is very small, and it is not feasible to attempt to secure a large number of reports each month from one-man or two-man farms. A few persons, usually the members of the family on a farm, can care for a large acreage, except during the planting and harvesting seasons, when some temporary help is employed. Quite frequently farmers in a district co-operate during the busy seasons, aiding each other when an emergency arises.

During the past year a number of cranberry growers were added to the list of reporting agencies, which now includes 89 employers of agricultural labor, consisting of 17 farms and market gardens, 23 dairies and stock farms, 27 nurseries, wholesale florists, and landscape gardens, 11 fruit growers, 10 cranberry growers, and one leaf-tobacco grower. The maximum number of persons employed was 2,331 in September, by 88 employers. The number of persons on the pay rolls does not include owners, partners, tenants, managers, or overseers.

According to the returns received in 1933, the number of "year-round" employees and the number of "family members" who were paid for their services varied only slightly from month to month. The increases in the number employed during April to October were due almost wholly to the employment of extra help during the planting and harvesting seasons.

Index numbers of employment of agricultural labor, by months, September, 1931—December, 1932, are given in the following summary:

1931		1932		1932		1932	
September	100.0	January	38.1	May	82.2	September	119.1
October	83.1	February	36.2	June	74.1	October	110.9
November	57.3	March	38.3	July	74.9	November	62.8
December	49.2	April	61.5	August	71.5	December	49.7

It will be observed that in the winter months employment was at its lowest point. There was a decided improvement in both April and May, 1932, and a slight decrease in June, with employment continuing at about the June level throughout the summer. In September the number employed nearly doubled and in October employment was only slightly less than in September. A sharp decline was noted in November and a further decrease in employment in December. These seasonal trends resulted from a combination of factors. Thus, in each of the four principal classes of agricultural employment additional seasonal help was employed in the spring months, more particularly at the nurseries, and by wholesale florists and landscape gardeners, in which class of employment most of the temporary help was dismissed during the summer, a few additional workmen were employed in September, and the number on the pay rolls was gradually reduced thereafter. On the dairies and stock farms and the market gardens seasonal help was employed mostly during the summer months. In cranberry growing, after the preparatory work in the spring, quite a number of the workmen were dismissed, but as soon as the crop was ripe enough for picking, the force was greatly increased. The ten cranberry growers included in the survey had only 111 employees in August, but increased the force to 1,189 in September and 1,221 in October, and then reduced the number to 373 in November, and 247 in Decem-

ber. During the last two months of the year the majority of those employed were engaged in sorting and packing. Thus the increase in employment in the fall, as shown by the index numbers, was largely due to requirements in the cranberry growing industry, while in the other classes of agricultural employment employees were being dismissed.

Office and Miscellaneous Employment. In order that the monthly surveys might be more fully representative of all important classes of employment in the State, the following somewhat unrelated classes not previously canvassed were added to the list in 1931: banks and trust companies; insurance companies and agencies; hotels; hospitals; schools and colleges; dyers and cleansers; laundries; express, transfer, teaming and trucking companies; theatres; clubs and associations; and miscellaneous companies (principally advertising agencies and brokerage and investment houses). The number of reports received each month from employers in this group has been increased to about 650, representing nearly 900 companies, establishments, or "units," which furnish employment to approximately 29,000 wage-earners.

For eight of these classes or subdivisions, monthly index numbers of employment during the period September, 1931, to December, 1932, are presented in Table 12, and a chart,[1] showing, graphically, the trend of employment during the same period, appears in the appendix. The number of persons employed in September, 1931, was taken as the base (100.0) in computing the index numbers in each of the series.

Table 12.—Index Numbers of Employment in Eight Miscellaneous Classes of Employment. By Months; September, 1931 — December, 1932.

(Base — September, 1931 = 100.0)

Years and Months	Banks and Trust Companies	Insurance Companies and Agencies	Hotels	Laundries	Hospitals	Schools and Colleges	Amusement and Recreation Places	Trucking and Handling
1931								
September	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October	101.2	99.5	101.6	101.7	99.6	121.3	101.2	97.9
November	100.1	100.3	101.1	100.2	99.7	121.5	101.5	96.8
December	95.3	100.4	98.8	98.7	101.0	120.0	100.5	98.9
1932								
January	95.2	99.6	96.2	95.3	99.3	118.1	96.5	89.7
February	94.9	99.8	95.5	94.6	99.3	116.7	88.9	90.8
March	94.7	99.9	95.0	94.2	99.0	117.1	81.5	88.3
April	94.2	100.1	94.4	94.1	99.4	117.1	88.3	89.1
May	94.1	100.0	93.2	93.7	99.4	117.5	73.6	81.0
June	94.0	99.6	95.8	97.5	99.3	102.7	69.3	77.8
July	94.1	100.3	94.1	95.9	101.6	45.0	66.7	74.4
August	94.0	100.3	91.0	94.6	100.9	40.7	66.6	73.2
September	93.1	99.4	85.1	96.9	99.0	89.8	71.2	73.2
October	92.2	99.5	84.3	97.3	97.4	100.6	72.2	86.3
November	91.6	99.8	84.8	96.6	98.7	100.4	71.3	78.8
December	91.4	99.6	84.0	96.3	98.5	96.0	63.0	77.6

In the *banks and trust companies* the decrease in employment in December, 1931, was due to the closing of several banks. In 1932 there was a gradual decrease from month to month in the number employed until the lowest point (91.4) was reached in December.

The *insurance companies* maintained an almost uniform force of employees during the entire period. Among the insurance companies which report are some of the largest in the country, and these supply complete returns for all of their agencies and branch offices in Massachusetts.

In the *hotels* the general trend of employment was decidedly downward in 1932. The opening of summer hotels failed to add to any great extent to the number employed, while the city and year-round hotels continued to dismiss employees because of a decrease in business. In December, the index number of employment reached the lowest point (84.0). Included among the hotels which report are several which are open only during the summer and early fall.

[1] See Appendix, page 142, Plate 16.

Employment in *laundries* dropped quite sharply from October, 1931, to January, 1932, and continued to decrease slowly until May, but increased somewhat during the remainder of the year.

In the *hospitals* there was relatively little change from month to month in the number of "institutional employees." This term, as here used, includes nurses in training, orderlies, building employees, and laborers about the grounds, but does not include professional employees who are paid on an annual salary basis, attendants, and consulting physicians.

In *schools and colleges* those covered by the reports include the office staff and employees in the buildings and about the grounds, but do not include the teaching staff. Employment of such "institutional employees" fluctuated greatly at the beginning and ending of the school year. The numbers employed in July, August, and September in 1932, were decidedly less than in any other months of the year. In the fall of 1932 the institutions reporting did not re-employ a large number of those who were employed during the school year beginning in the fall of 1931.

Employment in *amusement and recreation places* decreased to a marked degree in 1932 and in December the employment index number fell to 63.0, the lowest point reached during the year. The closing of several theatres, the complete equipment of others with sound apparatus, and other "changes in policy" resulted in the dismissal of large numbers of stage employees, musicians, and other employees.

The trucking and handling companies employ a large number of manual workers who are paid only for time actually worked. The amount of work available varied considerably from week to week during the past year. There was a large and almost continuous decrease in the number of wage-earners employed by such companies during the first nine months of the year, and in both August and September the index number was 73.2. In October there was an increase to 86.3, but the index number fell to 78.8 in November, and to 77.6 in December.

In certain of the classes of employment above considered, salaries are paid on a monthly or semi-monthly basis, and, in some establishments, such as hotels and hospitals, the employees receive board and lodging in addition to cash compensation for services. In order that the data may be comparable with data secured in connection with other surveys, all salaries reported on other than a weekly basis have been reduced to their weekly equivalent, and any additional compensation in the form of subsistence has been excluded from consideration in computing the pay rolls. No index numbers relative to the amount of compensation have been computed, but information of this nature in some detail appears in the press announcements issued each month.

Building Statistics. The collection of records of building permits granted in municipalities in Massachusetts was first undertaken in 1919, and quarterly reports were then received from 36 cities. The number of municipalities reporting has since been increased to 55[1] (including all of the 39 cities and 16 of the larger towns). During a period of six years, 1927 to 1932, monthly reports have been received from these 55 municipalities, and the records cover approximately 90 per cent of the building operations in the State, exclusive of State and Federal buildings,

[1] A list of the 55 cities and towns covered by this monthly survey follows:

39 Cities

Attleboro	Fall River	Lowell	Newton	Somerville
Beverly	Fitchburg	Lynn	North Adams	Springfield
Boston	Gardner	Malden	Northampton	Taunton
Brockton	Gloucester	Marlborough	Peabody	Waltham
Cambridge	Haverhill	Medford	Pittsfield	Westfield
Chelsea	Holyoke	Melrose	Quincy	Woburn
Chicopee	Lawrence	New Bedford	Revere	Worcester
Everett	Leominster	Newburyport	Salem	

16 Towns

Arlington	Brookline	Milton	Plymouth	Wellesley
Belmont	Dedham		Saugus	West Springfield
Braintree	Framingham	Needham	Watertown	Winchester
		Norwood		Winthrop

the permits for which are not included in the records of municipalities.

The questionnaire used calls for the number of applications filed for permits to build, the value represented thereby, classified by type of structure and intended use, and the number of family accommodations to be provided, classified by type of residence. Mimeographed summaries of the returns are issued each month immediately following the month to which these statistics relate.

The estimated cost of prospective building in the 55 municipalities for each of the six years 1927-1932, inclusive, are presented in Table 13. In 1932 the estimated cost of building of each class was far below the corresponding cost in 1931 and in any of the other years specified, and this was particularly true of new residential building. In each of the three years prior to 1930 the value of new residential building exceeded the value of new non-residential building by a large amount; but in 1930, 1931 and 1932 the reverse was true.

Table 13.—Number and Estimated Cost of Buildings in 55 Municipalities in Massachusetts, 1927 - 1932: By Classes of Projects[1].

Number and Cost and Years	Residential Building	New Non-residential Building	Additions, Alterations, and Repairs	Totals — All Classes of Projects
		Number of buildings		
1932	1,806	5,134	14,115	21,055
1931	4,587	8,392	16,210	29,189
1930	4,931	9,615	16,417	30,963
1929	6,759	12,039	17,607	36,405
1928	10,580	12,967	17,184	40,731
1927	11,418	14,231	18,666	44,315
		Estimated Cost		
1932	$9,797,266	$11,800,136	$10,771,930	$32,369,332
1931	32,956,935	38,495,601	14,240,473	85,693,009
1930	40,146,313	45,173,157	22,033,838	107,353,308
1929	69,936,017	53,945,280	29,774,203	153,655,500
1928	96,878,609	52,047,563	22,122,372	171,048,544
1927	101,959,226	51,765,595	27,574,615	181,299,436

[1] Annual summaries of the data in detail for the individual municipalities have been issued in mimeographed form.

In 1932 applications were filed in the 55 municipalities covering 21,055 buildings, and the estimated cost of the work was $32,369,332, of which cost 30.3 per cent was for new residential buildings, 36.4 per cent for new non-residential buildings, and 33.3 per cent for additions, alterations, and repairs.

Of the 1,806 dwellings planned, 1,697, or 94.0 per cent, were of the one-family type, 94, or 5.2 per cent, were two-family dwellings, five were dwellings with stores, and only eight were multi-family dwellings (three or more families). In recent years there has been a marked decrease in the number of multi-family houses erected in the 55 municipalities, from 917 in 1927; to 832 in 1928; 332 in 1929; 117 in 1930; 78 in 1931; and only eight in 1932. Of the total estimated cost of new residential buildings, amounting to $9,797,266 in 1932, the estimated cost of one-family houses was $8,469,466, or 86.5 per cent; two-family houses, $654,000, or 6.7 per cent; multi-family houses, $305,000, or 3.1 per cent; non-housekeeping dwellings (two dormitories), $345,000, or 3.5 per cent; and dwellings with stores or shops, $23,800, or 0.2 per cent.

In Table 14 data are presented showing by classes of structures the number of new residential buildings for which permits to build were granted, the estimated cost of such buildings, and the number of family accommodations to be provided in one-family, two-family, and multi-family houses; and for non-residential buildings, the number of buildings to be erected, the estimated cost of such buildings, and the estimated cost of additions, alterations, and repairs.

Table 14.—Summary of Prospective Building in 55 Municipalities in Massachusetts during the Year 1932: By Classes of Structures.

1 — New Residential Buildings

Classes of Structures	Number of Buildings	Estimated Cost	Number of Family Accommo-
Housekeeping dwellings:			
One-family dwellings	1,697	$8,469,466	1,697
Two-family dwellings	94	654,000	188
One-family and two-family dwellings with stores or shops therewith	5	23,800	5
Multi-family dwellings (three or more families)	8	305,000	110
Non-housekeeping dwellings:			
Bachelor apartments, dormitories, clubs and association buildings with bedrooms	2	345,000	–
Hotels	–	–	–
Lodging houses and other non-housekeeping dwellings	–	–	–
Total — New residential buildings	*1,806*	*$9,797,266*	*2,000*

2 — New Non-Residential Buildings, and Additions, Alterations, and Repairs

Classes of Structures	Number of Buildings	Estimated Cost	Rank on Basis of Cost
New Non-residential buildings:			
Amusement and recreation places (including club buildings without bedrooms)	75	$344,441	10
Churches, chapels and parish houses	7	358,500	9
Factories, bakeries, ice-plants, greenhouses, laundries and other workshops	91	237,485	13
Garages, public	43	126,050	14
Garages, private	3,247	1,065,504	4
Gasoline and service stations	159	265,265	11
Institutional buildings	11	1,528,225	2
Office buildings, including banks	21	414,175	6
Public buildings, including libraries and museums	15	1,282,952	3
Public works and utilities	5	372,400	7
Schools, grade and high (public and private)	11	4,201,080	1
Sheds, poultry houses, and other minor outbuildings	991	248,174	12
Storage warehouses, coal pockets, lumber sheds, etc.	100	359,380	8
Stores, restaurants, and other mercantile buildings	238	841,498	5
All other non-residential buildings	120	155,007	–
Totals — New non-residential buildings	*5,134*	*$11,800,136*	–
Additions, alterations, and repairs	*14,115*	*$10,771,930*	–

On the 2,000 family accommodations provided, 1,697, or 84.9 per cent, were one-family dwellings; 188 accommodations, or 9.4 per cent, were in two family dwellings; 110, or 5.5 per cent, were in multi-family dwellings; and only five were in dwellings with stores or shops.

The total number of new non-residential buildings planned in the 55 municipalities in 1932 was 5,134, estimated to cost $11,800,136. On the basis of cost, the 11 school buildings, as a group, ranked first, with an estimated cost of $4,201,081, or 35.6 per cent; the second group included 11 institutional buildings (colleges and universities, hospitals, convents, "homes," association buildings, etc.) with an estimated cost of $1,528,225, or 13.0 per cent; the third group consisted of 15 public buildings, including libraries and museums(city, county, State) with an estimated cost of $1,282,952, or 10.9 per cent; and the fourth group consisted of 3,247 private garages, with an estimated cost of $1,065,504, or 9.0 per cent. Of the 5,134 new non-residential buildings, 3,247, or 63.2 per cent were private garages.

The estimated cost of additions, alterations, and repairs in 1932, represented by 14,115 permits granted, amounted to $10,771,930, or 75.6 per cent of the value ($14,240,473) represented by the 16,210 permits granted in 1931.

Information Service

The answering of inquiries relative to labor and industrial matters is an increasingly important function of this division. Requests for such information during the past year have been numerous and varied. The subjects of inquiry which were of special interest were: employment and wages; uniform labor legislation; 5-day week, 6-hour day; technological

unemployment; employment of aliens; contractual relations; legislation and employment conditions affecting women and minors; stabilization and regularization of employment; unemployment insurance and relief measures; use of leisure time; trends in building construction; conditions in textile industries; laws on workmen's compensation; industrial hazards; health of workers; noise in industry; taxation; tariffs; industrial disputes; costs of living; directories of industrial establishments; industrial resources of communities; and the United States Census of 1930 in all its phases.

The reference library, maintained primarily for the use of the officials of the department, is also used extensively by the general public. Reference material is so arranged that it is readily accessible. A librarian and an assistant devote full time to this work and assist in answering inquiries addressed to the department.

The library now comprises over 3,500 bound volumes of official and unofficial reports and reference books, and numerous pamphlets, and mimeographed reports on industrial subjects. There are received currently 15 daily newspapers, 30 quarterlies, 188 monthlies, 31 weeklies and 6 biweeklies. A large number of these reports are received on an exchange basis from federal and state labor departments, trade unions, and private industrial research organizations.

Material pertinent to the work of the department is clipped from periodicals, pamphlets, reports and newspapers as received, or is indexed for future reference. Clippings are distributed daily among the members of the staff, who are thus advised as to industrial developments and conditions in the respective fields to which their work relates. "Scrap books" containing articles and clippings on various topics are prepared, and are of much assistance to the department officials in answering inquiries relative to industrial matters of current interest.

Statistics of Manufactures, 1931

Introductory. The Census of Manufactures in Massachusetts, for the year 1931, was taken by the Division of Statistics in co-operation with the United States Bureau of the Census, thereby avoiding the duplication of a large amount of field and office work and effecting a considerable saving on account of salaries, postage, printing, and the traveling expenses of temporary investigators in the field.

In Massachusetts, the census was under the immediate supervision of the Director of Statistics, who was appointed supervisor of the Census in Massachusetts by the federal bureau. The schedules, furnished by the census bureau, were used jointly, and the franking privilege was granted in connection with this work. The original reports by manufacturers were forwarded to the federal bureau after copies were made for the records of this department.

In order to make public as early as possible the census data for municipalities and the principal industries therein, preliminary tabulations were made by the Division of Statistics and the results were issued in the form of press notices.[1] A tabulation of the returns, by industries, for the State as a whole, was made by the Federal Census Bureau, and the

[1] This series of press notices included the following:

Nos. 1-39. *Individual Cities.* A separate press notice for each of the 39 cities containing data, by principal industries, for 1931, with comparable data for specified industries for certain prior years.

No. 40. *Summary by Cities.* Totals only for each city, 1931.

No. 41. *General Summary for the State.* Principal data by years, 1914-1931.

No. 42. *Summary by Towns.* Totals only for each town, 1931.

No. 43. *Metropolitan Boston.* Principal data by municipalities, 1931.

No. 44. *Summary by Industries.* Principal data for leading industries, 1931, with comparable data for the years, 1919-1931.

No. 45. *Metropolitan Boston.* Principal data by industries, 1931, with comparable data for the years, 1921-1931.

Nos. 46-53. *Leading Towns.* A separate press notice for each of the following important industrial towns: Adams, Athol, Easthampton, Framingham, Northbridge, Norwood, Watertown, and West Springfield.

results are included in this report as a part of the official returns of the census.

The total number of manufacturing establishments in operation in the year 1931 was 9,301. The total value of products manufactured in these establishments amounted to $2,156,972,245. The cost of stock and materials used in manufacture amounted to $1,014,852,252, and the difference between these amounts ($1,142,119,993) represents the *value added* by the various manufacturing processes. The average number of wage-earners employed in the 9,301 establishments was 434,188, and the total amount paid in wages during the year was $474,146,719.

A comparison of the totals for 1931 with the corresponding totals for 1930 shows that there were decreases of 19.4 per cent in value of products; 23.9 per cent in cost of stock and materials used; 9.8 per cent in the average number of wage-earners employed; and 17.4 per cent in the amount paid in wages during the year. Although there was a general decline in manufacturing activity in 1931 and decreases also in nearly all of the industries, nevertheless, in two important industries—woolen goods and silk goods—there were substantial increases in the average number of wage-earners employed in that year over 1930.

Summary of Principal Data, 1913—1932

All Industries, Combined. In order to show the general industrial trends in Massachusetts for a series of years, the principal data for all manufacturing industries combined, for the years 1913 to 1931, inclusive, are presented in Table 15. In making comparisons for the several years of the money values presented in this summary, due allowance should be made for price fluctuations from year to year. The *values* of products manufactured do not necessarily represent the relative *volume* of goods produced in the several years.

A chart showing, graphically, the trends of employment, earnings, and real wages of wage-earners in the manufacturing industries and the cost of living in Massachusetts by years, 1913 to 1932, inclusive, appears on page 85, and these trends have been discussed in the text on pages 83 to 87.

Table 15.—Principal Data Relative to Manufacturing in Massachusetts, All Industries Combined, 1913 - 1931, Inclusive

Years	Number of Establishments	Capital Invested	Value of Stock and Materials Used	Amount of Wages paid during the Year	Average Number of Wage-earners Employed	Value of Products	Value Added by Manufacture
1913	8,405	$1,345,461,875	$961,778,476	$351,299,706	616,927	$1,658,728,363	$696,949,887
1914	12,013[1]	1,548,960,733	931,383,793	341,309,517	606,698	1,641,373,047	709,989,254
1915	9,707	1,550,080,995	959,662,457	346,243,472	596,348	1,692,445,366	732,782,909
1916	9,829	1,791,050,092	1,354,433,202	447,957,731	682,621	2,349,933,003	995,499,801
1917	9,865	2,239,848,630	1,782,440,354	537,144,629	708,421	3,020,557,545	1,238,117,191
1918	9,695	2,510,730,295	2,249,822,722	679,401,273	719,210	3,851,346,215	1,601,523,493
1919	11,906[1]	2,962,108,527	2,260,713,036	766,623,337	713,836	4,011,181,532	1,750,468,496
1920	10,262	2,987,620,867	2,489,237,446	891,176,822	695,832	4,370,276,822	1,881,039,376
1921	9,994[1]	[2]	1,441,035,230	641,360,936	579,071	2,849,413,516	1,408,378,286
1922	10,056	2,822,014,756	1,512,510,105	678,073,968	612,682	3,002,625,958	1,490,115,853
1923	10,519[1]	[2]	1,835,218,349	799,363,111	667,443	3,570,543,265	1,735,324,916
1924	10,174	2,853,590,206	1,629,342,134	711,812,104	589,364	3,126,137,145	1,496,795,011
1925	10,027[1]	[2]	1,794,643,051	716,155,593	591,438	3,426,617,326	1,631,974,275
1926	9,903	2,819,189,700	1,790,611,294	738,208,510	602,343	3,419,814,877	1,629,203,583
1927	10,037[1]	[2]	1,678,812,411	705,929,549	578,068	3,317,851,888	1,639,039,477
1928	9,971	2,735,070,138	1,663,155,564	670,063,291	540,927	3,224,227,651	1,561,072,087
1929	9,872[1]	[2]	1,681,432,788	694,805,312	557,494	3,392,162,237	1,710,729,449
1930	9,586	2,483,589,920	1,333,317,227	573,838,044	481,449	2,676,387,256	1,343,070,029
1931	9,301[1]	[2]	1,014,852,252	474,146,719	434,188	2,156,972,245	1,142,119,993

[1] The Census of Manufactures for the years 1914, 1919, 1921, 1923, 1925, 1927, 1929, and 1931 included certain establishments not canvassed in the other years, but these establishments added relatively little to the other items specified.

[2] Not called for on the questionnaire.

Cities. Principal data having reference to manufactures in each of the 39 cities of the commonwealth, with totals for the state and for the 316 towns grouped together, are presented in Table 16.

The total value of products manufactured in the 39 cities in 1931 ($1,706,900,817) constituted 79.1 per cent of the aggregate value ($2,156,972,245) of all products manufactured in the commonwealth in that year, and the average number of wage-earners (332,526) employed in the manufacturing industries in the 39 cities constituted 76.6 per cent of the average number of wage-earners (434,188) employed in all manufacturing establishments in the state. The total population of the 39 cities (as of April 1, 1930) was 2,940,335, constituting 69.2 per cent of the aggregate population (4,249,614) of the state in that year.

As a manufacturing center, Boston ranked first among the cities of the commonwealth, and the value of the products manufactured in the city in 1931 was $407,150,109, constituting approximately 19 per cent of the aggregate value of all products manufactured in the entire state during the year. In order of importance, based on the value of products manufactured in 1931, the twelve leading cities were: Boston, Cambridge, Worcester, Lawrence, Springfield, Somerville, Lynn, New Bedford, Fall River, Everett, Holyoke and Lowell.

Table 16.—Principal Data Relative to Manufactures in the 39 Cities in Massachusetts, 1931

Cities	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	**9,301**	**$1,014,852,252**	**$474,146,719**	**434,188**	**$2,156,972,245**
39 Cities	*7,556*	*799,228,743*	*364,998,094*	*332,526*	*1,706,900,817*
Attleboro	123	8,226,581	5,049,481	4,435	18,190,311
Beverly	49	2,123,287	4,263,702	3,358	9,268,845
Boston	2,512	189,504,511	72,944,185	58,072	407,150,109
Brockton	248	21,490,087	10,602,840	10,652	43,019,671
Cambridge	388	45,782,455	18,949,508	16,141	124,805,521
Chelsea	111	7,529,333	4,623,681	4,146	18,467,398
Chicopee	54	17,578,686	8,017,312	6,530	43,545,127
Everett	109	33,422,675	7,764,467	5,272	57,201,696
Fall River	236	33,868,629	17,448,222	22,064	60,756,746
Fitchburg	95	13,699,179	5,186,172	5,089	25,855,695
Gardner	76	5,171,195	3,487,478	3,462	13,339,823
Gloucester	71	4,741,393	1,961,643	1,727	9,339,903
Haverhill	282	14,486,628	7,237,202	7,137	29,262,923
Holyoke	152	21,304,120	10,714,498	10,398	45,814,683
Lawrence	170	55,091,417	24,419,685	23,500	96,215,897
Leominster	72	6,569,832	4,052,566	4,404	15,545,919
Lowell	222	22,829,665	12,541,771	13,710	45,579,974
Lynn	340	28,371,257	17,515,834	15,675	73,510,747
Malden	103	8,678,418	2,543,184	2,737	18,618,915
Marlborough	27	3,084,315	2,116,392	2,352	6,986,805
Medford	58	3,099,763	1,341,125	1,022	6,004,859
Melrose	22	767,993	333,601	298	1,564,352
New Bedford	195	27,688,843	20,300,283	23,533	63,433,635
Newburyport	44	3,252,015	2,142,665	2,235	7,578,401
Newton	58	5,190,114	2,675,795	2,452	12,896,805
North Adams	42	9,182,780	3,798,914	3,657	16,923,231
Northampton	45	2,570,007	1,897,124	1,770	8,818,251
Peabody	76	13,464,636	6,561,062	5,413	26,611,828
Pittsfield	58	11,717,778	7,294,671	6,399	33,528,788
Quincy	157	15,711,391	9,133,317	6,157	35,204,608
Revere	22	264,952	200,395	155	746,970
Salem	108	8,748,700	4,884,020	4,453	22,554,959
Somerville	140	54,602,612	7,733,434	5,991	74,135,973
Springfield	299	28,005,211	17,243,087	13,947	75,885,426
Taunton	92	7,893,699	4,371,000	4,485	18,134,116
Waltham	78	3,055,598	2,771,166	2,466	8,979,601
Westfield	50	3,131,906	1,711,485	1,810	6,680,608
Woburn	42	4,384,028	1,895,092	1,467	8,844,455
Worcester	530	52,943,054	27,270,035	23,955	115,897,243
316 Towns	*1,745*	*215,623,509*	*109,148,625*	*101,662*	*450,071,428*

Towns. The total value of products manufactured in the 316 towns in 1931 ($450,071,428) constituted 20.9 per cent of the aggregate value ($2,156,972,245) of all products manufactured in the Commonwealth in that year, and the average number of wage-earners (101,662) employed in the manufacturing industries in the 316 towns constituted 23.4 per cent of the average number of wage-earners (434,188) employed in all

manufacturing establishments in the State. The total population of the 316 towns (as of April 1, 1930) was 1,309,279, and constituted 30.8 per cent of the aggregate population (4,249,614) of the State.

In order of importance, based on the value of products manufactured in 1931, the leading manufacturing towns were: Watertown, Norwood, Walpole, Framingham, Braintree, Southbridge, Easthampton, West Springfield, Uxbridge, Plymouth, Webster, Andover, Whitman, Clinton, Northbridge, Athol, Amesbury, Adams, Weymouth, Methuen, Hudson, Stoughton and North Attleborough.

Table 17.—Principal Data Relative to Manufactures in the 316 Towns in Massachusetts, 1931

Towns	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	**9,301**	**$1,014,852,252**	**$474,146,719**	**434,188**	**$2,156,972,245**
39 Cities	*7,556*	*799,228,743*	*364,998,094*	*332,526*	*1,706,900,817*
316 Towns[1]	*1,745*	*215,623,509*	*109,148,625*	*101,662*	*450,071,428*
Abington	17	1,441,185	644,676	529	2,965,098
Acton	7	738,790	239,623	196	1,448,111
Adams	21	2,580,189	1,880,940	2,159	6,757,479
Amesbury	28	2,712,596	1,843,093	1,826	7,050,898
Amherst	10	262,661	146,649	144	491,031
Andover	13	4,743,505	1,959,269	1,917	9,052,552
Arlington	27	430,515	197,420	146	937,523
Ashburnham	6	294,665	302,134	298	749,602
Athol	34	2,915,975	1,932,867	2,068	7,367,432
Ayer	9	36,392	49,950	48	127,807
Barnstable	5	55,399	46,579	38	188,956
Belmont	4	23,840	37,350	26	106,331
Billerica	9	3,514,229	1,543,964	1,251	5,452,146
Braintree	21	9,474,638	1,592,499	1,288	14,132,710
Bridgewater	11	1,880,312	808,057	914	3,481,192
Brookline	19	555,149	352,979	315	1,519,761
Canton	21	2,760,473	1,148,047	1,086	5,658,179
Chelmsford	11	347,268	567,394	450	1,632,622
Chester	4	168,059	129,131	123	533,523
Clinton	18	3,351,913	1,996,828	1,862	7,715,784
Concord	12	214,594	179,090	162	586,899
Danvers	17	985,117	581,769	661	1,987,443
Dedham	12	210,415	169,594	177	472,167
Deerfield	9	332,089	86,594	69	519,537
Dudley	8	1,766,462	1,002,963	954	3,781,180
East Bridgewater	5	192,911	226,209	272	692,997
Easthampton	12	7,434,734	2,178,346	2,053	11,432,416
Easton	6	732,796	295,991	299	1,729,457
Erving	4	911,189	405,316	410	2,352,445
Foxborough	8	438,822	520,373	466	2,418,326
Framingham	42	7,301,922	3,652,663	2,862	14,147,109
Franklin	21	2,242,653	884,848	708	3,978,052
Grafton	9	1,168,127	998,782	1,066	2,698,057
Great Barrington	10	577,173	513,039	529	1,580,827
Greenfield	40	1,202,790	1,228,885	1,169	4,793,999
Hanover	5	396,805	374,957	452	1,011,032
Hingham	4	20,919	19,235	15	61,918
Hudson	27	2,191,390	2,071,133	1,986	6,340,869
Leicester	4	248,308	135,672	116	453,634
Mansfield	15	1,481,293	440,360	494	2,419,854
Marblehead	14	104,963	144,183	147	341,590
Medway	5	312,213	259,857	276	852,976
Merrimac	5	200,381	221,254	179	650,371
Methuen	21	4,561,797	1,168,456	1,431	6,379,775
Middleborough	19	1,093,438	532,092	722	2,415,859
Milford	29	2,158,667	991,832	1,049	3,895,014
Millbury	21	2,387,606	1,121,291	973	5,178,848
Milton	8	98,193	54,585	38	398,129
Montague	17	2,088,510	1,307,187	1,268	5,037,071
Natick	29	1,657,135	617,044	535	3,211,771
Needham	27	1,386,352	620,696	595	3,028,282
North Andover	8	1,758,411	1,173,112	1,048	3,278,460
North Attleborough	58	2,069,120	1,946,294	1,813	5,937,515
North Brookfield	5	1,776,223	824,766	783	3,534,776
Northbridge	8	3,182,672	2,704,514	2,567	7,407,622
Norton	9	331,185	434,982	452	1,059,962
Norwood	21	6,836,864	3,105,748	2,217	15,729,590
Orange	22	1,256,784	719,417	648	2,751,581
Oxford	9	707,272	410,638	441	1,252,021

[1] For 146 towns data cannot be presented without disclosing the operations of individual establishments, and in 79 towns there were no manufacturing establishments coming within the scope of the census canvass; i.e., with product values in excess of $5,000.

Table 17 — Continued

Towns	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Palmer	17	2,085,813	1,449,664	1,620	5,747,174
Plymouth	17	5,257,460	1,546,110	1,521	9,220,167
Randolph	8	361,600	224,530	229	699,450
Raynham	4	79,203	39,779	44	165,903
Reading	14	1,527,520	448,168	316	2,676,503
Rockland	17	1,405,423	633,344	622	2,472,133
Saugus	9	145,545	103,998	71	371,605
South Hadley	9	815,686	400,889	334	1,766,409
Southbridge	27	5,042,458	3,865,046	3,432	13,595,207
Spencer	14	3,026,423	1,241,035	1,289	5,136,599
Stoneham	18	1,300,974	732,879	697	3,004,702
Stoughton	24	3,356,973	1,187,931	1,076	5,961,850
Swampscott	8	73,302	36,456	32	190,386
Templeton	13	715,147	533,602	477	1,688,937
Townsend	6	335,038	379,034	255	897,073
Uxbridge	7	6,583,347	1,493,600	1,352	9,460,482
Wakefield	32	1,791,714	980,453	1,080	3,840,279
Walpole	13	10,108,806	1,755,939	1,326	15,410,793
Ware	16	1,707,836	884,124	1,068	3,403,416
Wareham	7	196,488	123,537	120	467,558
Warren	6	789,940	430,864	449	1,820,325
Watertown	45	6,532,510	6,047,668	5,393	20,437,924
Webster	21	4,856,504	2,522,169	2,549	9,090,941
Wellesley	12	351,864	233,660	132	2,550,305
West Springfield	27	4,156,146	2,542,096	2,199	10,133,726
West Stockbridge	4	51,639	35,795	37	127,272
Westborough	12	758,411	358,436	333	1,792,638
Weymouth	18	3,316,831	1,248,046	1,174	6,563,205
Whitman	19	4,302,426	1,804,063	1,507	7,962,800
Winchendon	16	1,534,846	902,267	1,038	3,325,852
Winchester	17	1,584,127	815,088	628	2,966,428
Winthrop	10	79,982	47,809	37	214,009
All other towns[1]	358	39,135,479	22,357,330	20,439	83,741,209

Metropolitan Boston. As defined for purposes of the annual census of manufactures in Massachusetts, "Metropolitan Boston"[1] comprises 14 cities and 29 towns included within a radius of about 15 miles from the State House in Boston. Within this area in 1931 were located 4,536 manufacturing establishments, in which products valued at $955,211,023 were manufactured. The average number of wage-earners employed in these establishments during the year was 140,074, and the total amount paid in wages was $171,567,144. The number of manufacturing establishments in Metropolitan Boston in 1931 constituted 48.8 per cent of the total number (9,301) in the entire State; the value of products manufactured constituted 44.3 per cent of the total value of all products manufactured in the State; and the number of wage-earners was 32.3 per cent of the total number employed in all manufacturing establishments in the State.

Principal data relative to manufactures in Metropolitan Boston for the years 1921 to 1931, inclusive, are presented in Table 18; for each of the 14 cities and 29 towns, in Table 19; and for the leading industries, in Table 20.

Table18.—Principal Data Relative to Manufactures in Metropolitan Boston,[1] 1921 - 1931

ALL INDUSTRIES

Years	Number of Establishments	Capital Invested	Value of Stock and Materials Used	Amount of Wages paid during the Year	Average Number of Wage-earners Employed	Value of Products
1921	4,508	[2]	$519,832,014	$202,173,388	168,313	$1,025,586,110
1922	4,482	$804,668,324	537,911,241	210,657,440	178,343	1,070,493,317
1923	4,740	[2]	620,031,648	245,640,825	193,000	1,232,206,787
1924	4,561	849,235,200	584,512,038	230,727,344	178,487	1,148,260,013
1925	4,511	[2]	606,378,433	231,857,192	175,801	1,235,875,285
1926	4,577	851,797,589	639,566,767	245,916,443	184,814	1,272,959,199
1927	4,755	[2]	633,003,950	237,708,229	178,316	1,289,801,723
1928	4,713	897,124,478	648,665,366	235,017,427	174,522	1,278,895,983
1929[1]	4,831	[2]	688,277,589	248,419,990	182,780	1,409,136,706
1930[1]	4,652	866,181,625	590,738,808	215,334,364	162,699	1,181,391,542
1931[1]	4,536	[2]	452,641,062	171,567,144	140,074	955,211,023

[1] For a list of cities and towns in Metropolitan Boston, see Table 19 on page 119. In 1929 and thereafter the towns of Norwood, Stoughton, and Walpole were included in this District.

[2] Not called for on the questionnaire.

Table 19.—Principal Data Relative to Manufactures in Metropolitan Boston, 1931. By Cities and Towns.

Municipalities	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Metropolitan Boston	**4,536**	**$452,641,062**	**$171,567,144**	**140,074**	**$955,211,023**
The 14 Cities	*4,140*	*400,365,100*	*150,424,784*	*122,051*	*848,132,009*
Boston	2,512	189,504,511	72,944,185	58,072	407,150,109
Cambridge	388	45,782,455	18,949,508	16,141	124,805,521
Chelsea	111	7,529,333	4,623,681	4,146	18,467,398
Everett	109	33,422,675	7,764,467	5,272	57,201,696
Lynn	340	28,371,257	17,515,834	15,675	73,510,747
Malden	103	8,678,418	2,543,184	2,737	18,618,915
Medford	58	3,099,763	1,341,125	1,022	6,004,859
Melrose	22	767,993	333,601	298	1,564,352
Newton	58	5,190,114	2,675,795	2,452	12,896,805
Quincy	157	15,711,391	9,133,317	6,157	35,204,608
Revere	22	264,952	200,395	155	746,970
Somerville	140	54,602,612	7,733,434	5,991	74,135,973
Waltham	78	3,055,598	2,771,166	2,466	8,979,601
Woburn	42	4,384,028	1,895,092	1,467	8,844,455
The 29 Towns	*396*	*52,275,962*	*21,142,360*	*18,023*	*107,079,014*
Arlington	27	430,515	197,420	146	937,523
Belmont	4	23,840	37,350	26	106,331
Braintree	21	9,474,638	1,592,499	1,288	14,132,710
Brookline	19	555,149	352,979	315	1,519,761
Canton	21	1,760,473	1,148,047	1,086	5,658,179
Dedham	12	210,415	169,594	177	472,167
Hingham	4	20,919	19,235	15	61,918
Milton	8	98,193	54,585	38	398,129
Needham	27	1,386,352	620,696	595	3,028,282
Norwood	21	6,836,864	3,105,748	2,217	15,729,590
Reading	14	1,527,520	448,168	316	2,676,503
Saugus	9	145,545	103,998	71	371,605
Stoneham	18	1,300,974	732,879	697	3,004,702
Stoughton	24	3,356,973	1,187,931	1,076	5,961,850
Swampscott	8	73,302	36,456	32	190,386
Wakefield	32	1,791,714	980,453	1,080	3,840,279
Walpole	13	10,108,806	1,755,939	1,326	15,410,793
Watertown	45	6,532,510	6,047,668	5,393	20,437,924
Wellesley	12	351,864	233,660	132	2,550,305
Weymouth	18	3,316,831	1,248,046	1,174	6,563,205
Winchester	17	1,584,127	815,088	628	2,966,428
Winthrop	10	79,982	47,809	37	214,009
7 other towns[1]	12	308,456	206,112	158	846,435

[1] Includes three towns (Cohasset, Hull, and Nahant) in which there were no manufacturing establishments, and four towns, (Dover, Lexington, Weston, and Westwood) for which data cannot be shown separately without disclosing the operations of individual establishments.

Table 20.—Principal Data, Relative to the Leading Manufacturing Industries in Metropolitan Boston, 1931.

PRINCIPAL INDUSTRIES[1] (Arranged in the order of value of products)	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Metropolitan Boston	*4,536*	*$452,641,062*	*$171,567,144*	*140,074*	*$955,211,023*
Printing and publishing	601	19,895,140	16,841,072	9,112	84,155,296
Electrical machinery, apparatus, and supplies[2]	59	13,705,404	11,374,849	9,615	51,299,687
Boots and shoes, other than rubber[3]	126	23,410,266	14,448,830	14,446	50,038,960
Clothing, men's and women's	390	25,102,110	10,035,277	9,506	48,026,802
Bread and other bakery products	493	18,328,837	7,151,264	5,811	42,976,704
Meat packing, wholesale	18	26,915,562	2,549,636	1,905	32,330,932
Foundry and machine-shop products, not elsewhere classified	169	9,094,402	7,086,711	5,471	26,722,997
Confectionery	92	13,216,761	4,560,546	5,437	26,279,484
Boot and shoe cut stock and findings, not made in boot and shoe factories	120	18,876,784	2,738,908	2,613	25,473,464
Rubber goods, other than tires, inner tubes, and boots and shoes	37	9,058,072	3,271,782	3,064	18,771,260
Knit goods	45	8,345,581	2,883,187	3,139	14,831,605
Leather: Tanned, curried, and finished	29	9,286,266	3,153,083	2,557	14,499,189
Boxes, paper, not elsewhere classified	52	7,013,902	2,867,820	2,885	13,056,848
Furniture, including store and office fixtures	116	5,727,073	3,578,547	2,699	12,949,164
Coffee and spice roasting and grinding	24	9,855,379	532,540	450	12,564,994
Patent or proprietary medicines and compounds	41	4,120,847	1,465,330	1,168	12,390,479
Other industries[4]	2,124	230,688,676	77,027,762	60,196	468,843,158

[1] Includes all manufacturing industries for which the value of products in 1931 *exceeded* $10,000,000, except soap, sugar refining, motor vehicles and petroleum refining, the data for which cannot be shown separately without disclosing the operations of individual establishments. These four industries are included under "Other industries."

[2] Includes radio apparatus manufactured in eight establishments, and having a product value of $4,794,515.

[3] Does not include boot and shoe cut stock and findings, not made in boot and shoe factories (see below).

[4] Includes all industries for which the value of products in 1931 was less than $10,000,000, and also soap, sugar refining, motor vehicles and petroleum refining (see Note 1).

Counties. Principal data having reference to manufactures in each of the 14 counties of the State in 1931 are presented in Table 21. Based on the value of products, Middlesex County ranked first among the counties with value of products amounting to $454,759,433, or 21.1 per cent of the total for the State. Suffolk County was a close second, with a value of products amounting to $426,578,486, or 19.8 per cent. The other counties in order of rank were: Essex, Worcester, Hampden, Bristol, Norfolk, Plymouth, Berkshire, Hampshire, Franklin, Barnstable, Nantucket, and Dukes.

Table 21.—Principal Data Relative to the Manufacturing Industries in Massachusetts—By Counties, 1931.

COUNTIES	Number of Establishments	Value of Stock and materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	**9,301**	**$1,014,852,252**	**$474,146,719**	**434,188**	**$2,156,972,245**
Barnstable	20	117,144	98,735	79	373,184
Berkshire	168	26,876,327	15,408,325	14,552	65,957,518
Bristol	767	85,401,952	52,624,108	59,494	179,253,275
Dukes	4	8,275	14,941	10	41,610
Essex	1,296	147,335,834	77,115,853	71,642	307,474,366
Franklin	114	7,830,493	4,221,495	4,060	18,541,274
Hampden	620	80,219,957	44,146,103	39,010	198,727,217
Hampshire	101	14,192,848	6,504,184	6,105	24,868,537
Middlesex	1,622	225,371,342	84,424,893	74,929	454,759,433
Nantucket	4	40,191	34,699	22	112,229
Norfolk	427	62,210,877	24,607,862	18,919	124,688,454
Plymouth	398	39,061,461	17,958,683	17,880	76,624,756
Suffolk	2,655	197,378,778	77,816,070	62,410	426,578,486
Worcester	1,105	128,806,773	69,170,768	65,076	278,971,906

Principal Industries. A summary of the data relative to the principal manufacturing industries in Massachusetts in 1931, arranged in the order of value of products in 1931, is presented in Table 22. The total value of products of the 21 principal industries specified was $1,341,456,282, and constituted 62.2 per cent of the aggregate value of all products ($2,156,972,245) manufactured in Massachusetts during the year. Comparable data for each of these principal industries for a series of years, 1919 to 1931 inclusive, are presented in Table 23.

Table 22.—Summary of Data Relative to the Principal Manufacturing Industries[1] in Massachusetts, 1931.

Principal Industries[1] (Arranged in the order of value of products)	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
All Industries	**9,301**	**$1,014,852,252**	**$474,146,719**	**434,188**	**$2,156,972,245**
Boots and shoes, other than rubber[2]	397	79,519,942	45,679,225	47,664	160,666,398
Woolen and worsted goods	128	86,659,519	37,436,905	37,221	147,701,378
Cotton goods, excluding cotton small wares	120	53,329,684	38,868,889	46,990	114,707,445
Printing and publishing	957	26,409,270	23,456,179	13,224	111,083,716
Electrical machinery, apparatus and supplies[3]	102	31,777,549	22,751,703	20,055	104,984,155
Dyeing and finishing textiles	70	47,794,925	14,926,387	13,060	76,819,045
Bread and other bakery products	1,119	29,586,755	12,753,659	10,078	67,805,420
Foundry and machine-shop products	414	17,806,400	18,841,627	14,748	60,143,267
Clothing, men's and women's, including work clothing	487	31,017,083	13,216,215	14,052	59,920,324
Paper and wood pulp	78	27,898,672	11,960,645	10,652	58,148,375
Leather: Tanned, curried, and finished	99	29,966,431	10,697,504	8,658	50,051,338
Rubber goods, including rubber tires and inner tubes	60	$19,928,837	$7,758,322	6,728	$46,371,115
Boot and shoe cut stock and findings, not made in boot and shoe factories	351	21,848,045	6,366,501	6,463	46,248,503
Meat packing, wholesale	31	32,764,048	2,871,319	2,123	39,704,308
Gas, manufactured, illuminating and heating	32	13,104,100	5,170,219	3,304	38,598,658
Confectionery	127	14,646,330	4,983,946	5,943	30,176,229
Knit goods	70	14,997,853	6,765,890	7,636	29,460,966
Ship and boat building, steel and wooden, and repair work	35	12,970,551	7,669,775	4,846	27,711,085
Furniture, including store and office fixtures	204	10,541,937	7,051,101	6,153	24,143,874
Textile machinery and parts	102	6,791,520	8,865,356	7,527	24,090,354
Silk and rayon goods	38	10,468,547	5,809,739	6,939	22,920,329
All other industries[4]	4,280	385,024,254	160,245,613	140,124	815,515,963

[1] Includes all manufacturing industries for which the value of products in 1931 *exceeded* $20,000,000, except soap, sugar refining, motor vehicles and petroleum refining, the data for which cannot be shown separately without disclosing the operations of individual establishments. These four industries are included under "All other industries."

[2] Does not include boot and shoe cut stock and findings, not made in boot and shoe factories (see below).

[3] Includes radio apparatus. This industry, the returns for which were separately tabulated in 1931, had a product value of $11,228,127.

[4] Includes all industries for which the value of products in 1931 was less than $20,000,000, and also soap, sugar refining, motor vehicles, and petroleum refining, the product value of which exceeded $20,000,000, but the data for which cannot be given separately without disclosing the operations of individual establishments.

Table 23.—Summary of Data Relative to Manufacturing in Massachusetts: By Principal Industries, 1919 - 1931 [1]

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
		All Industries			
1919	11,906	$2,260,713,036	$766,623,337	713,836	$4,011,181,532
1920	10,262	2,489,237,446	891,176,822	695,832	4,370,276,822
1921	9,994	1,441,033,230	641,360,936	579,071	2,849,413,516
1922	10,056	1,512,510,105	678,073,968	612,682	3,002,625,958
1923	10,519	1,835,218,349	799,363,111	667,443	3,570,543,265
1924	10,174	1,629,342,134	711,812,104	589,364	3,126,137,145
1925	10,027	1,794,643,051	716,155,593	591,438	3,426,617,326
1926	9,903	1,790,611,294	738,208,510	602,343	3,419,814,877
1927	10,037	1,678,812,411	705,929,549	578,068	3,317,851,888
1928	9,971	1,663,155,564	670,063,291	540,927	3,224,227,651
1929	9,872	1,681,432,788	694,805,312	557,494	3,392,162,237
1930	9,586	1,333,317,227	573,838,044	481,449	2,676,387,256
1931	9,301	1,014,852,252	474,146,719	434,188	2,156,972,245
		Boots and Shoes, Other than Rubber			
1919	493	269,350,895	89,489,715	80,166	442,466,236
1920	518	266,378,621	85,820,835	69,273	443,322,965
1921	543	147,350,442	76,395,714	64,494	285,102,006
1922	580	139,281,827	80,334,802	70,294	276,232,880
1923	595	146,720,772	82,916,416	69,397	290,674,403
1924	567	120,976,254	72,462,742	62,969	246,897,275
1925	537	119,764,801	65,496,971	57,405	240,943,504
1926	508	121,665,003	70,444,841	59,738	244,177,601
1927	469	120,353,570	65,282,193	55,986	237,516,655
1928	453	126,778,246	63,871,277	55,478	238,884,158
1929	436	124,024,880	64,205,152	55,093	241,587,864
1930	420	95,336,095	50,896,764	49,105	185,072,323
1931	397	79,519,942	45,679,225	47,664	160,666,398
		Boot and Shoe Cut Stock and Findings (Not made in boot and shoe factories)			
1919	436	97,868,184	10,099,027	10,527	130,571,253
1920	393	66,974,420	9,186,674	8,128	90,362,987
1921	381	45,477,555	7,133,009	6,403	63,837,523
1922	420	49,638,963	7,817,846	7,406	70,352,803
1923	417	47,772,107	7,921,949	7,349	68,839,110
1924	381	42,123,956	7,269,733	6,536	60,337,334
1925	407	45,012,775	7,995,409	6,991	66,077,971
1926	361	52,775,368	8,973,167	7,806	73,795,554
1927	393	60,126,412	8,830,087	7,763	84,124,051
1928	364	63,242,637	8,286,694	7,615	83,979,422
1929	361	56,167,055	8,391,863	7,658	78,200,992
1930	349	42,855,725	7,259,574	6,917	59,345,418
1931	351	31,848,045	6,366,501	6,463	46,248,503
		Woolen and Worsted Goods			
1919	182	$212,710,061	$56,749,563	53,864	$342,626,145
1920	186	218,013,382	66,844,648	51,689	344,532,434
1921	180	142,163,532	63,230,393	56,644	262,633,663
1922	189	137,145,274	61,391,289	55,886	266,054,554
1923	186	202,207,973	76,189,812	64,842	352,136,045
1924	190	171,426,748	65,563,390	54,277	280,002,109
1925	187	200,289,254	64,931,507	54,876	309,528,290
1926	180	187,787,996	61,952,399	54,638	295,175,084
1927	174	163,149,995	58,035,387	51,064	268,835,806
1928	171	145,440,485	51,882,279	45,248	234,206,586
1929	156	146,020,898	52,304,583	45,673	242,898,460
1930	145	92,027,443	39,245,500	35,104	156,943,782
1931	128	86,659,519	37,436,905	37,221	147,701,378
		Cotton Goods, excluding Cotton Small Wares			
1919	191	359,675,239	109,902,503	122,499	596,880,441
1920	191	415,501,520	130,905,309	113,145	686,571,606
1921	182	153,725,300	96,547,054	106,337	313,829,605
1922	187	185,934,180	103,016,087	111,165	366,030,361
1923	191	223,569,567	115,080,841	113,707	415,922,838
1924	178	175,089,768	86,795,081	89,095	296,831,284
1925	178	200,972,528	91,812,779	96,182	345,864,097
1926	173	166,821,709	88,865,550	91,466	292,063,441
1927	163	145,630,938	88,089,667	90,875	284,706,007
1928	153	120,815,771	61,215,058	65,192	216,997,848
1929	135	125,441,636	65,556,859	70,788	233,618,009
1930	134	79,531,622	47,363,957	53,745	151,834,379
1931	120	53,329,684	38,868,889	46,990	114,707,445

[1] In making comparisons for the several years of the money values presented in this summary, due allowance should be made for price fluctuations from year to year. The *values* of products manufactured do not necessarily represent the relative volume of goods produced in the several years.

Table 23. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Printing and Publishing					
1919	1,198[1]	29,715,273	16,455,124	13,661	90,136,994
1920	755	32,873,508	19,245,705	12,969	83,897,559
1921	890[1]	35,301,875	19,841,638	12,764	106,850,504
1922	685	30,445,672	21,052,626	13,466	85,697,580
1923	917[1]	33,835,083	23,289,201	14,238	117,436,792
1924	756	30,323,839	23,701,120	13,908	93,698,513
1925	951[1]	34,561,352	24,609,306	14,231	125,176,183
1926	748	34,035,042	25,436,679	14,713	107,283,046
1927	1,022[1]	35,368,221	25,482,123	14,382	131,975,238
1928	821	34,795,664	26,594,305	14,634	112,243,252
1929	1,000[1]	35,245,669	28,115,167	15,198	140,481,332
1930	799	32,050,850	27,077,682	15,051	111,526,855
1931	957[1]	26,409,270	23,456,179	13,224	111,083,716
Electrical Machinery, Apparatus, and Supplies					
1919	110	$31,837,076	$27,649,667	23,889	$91,938,738
1920	105	48,894,162	38,289,830	28,561	126,861,130
1921	105	27,951,204	20,348,264	17,635	72,047,824
1922	116	33,043,527	24,930,824	19,064	93,083,923
1923	130	43,889,975	34,482,705	26,350	117,575,926
1924	130	48,721,722	33,227,577	24,523	129,905,665
1925	116	43,794,331	35,109,393	25,065	147,056,901
1926	128	64,534,132	39,142,134	27,899	177,148,280
1927	122	42,197,890	33,903,793	24,759	139,348,725
1928	120	56,874,825	33,972,583	24,788	156,081,762
1929	106	64,323,352	41,011,734	28,844	184,786,944
1930	111	45,095,735	31,948,815	24,217	120,334,662
1931[2]	102	31,777,549	22,751,703	20,055	104,984,155
Dyeing and Finishing Textiles					
1919	62	44,209,538	12,240,747	12,321	75,261,815
1920	66	63,246,501	18,872,562	16,292	106,264,963
1921	63	52,664,331	14,142,174	13,318	92,953,438
1922	65	51,913,956	14,067,567	13,332	84,826,219
1923	75	59,282,801	16,099,333	14,074	101,824,142
1924	66	47,812,253	14,145,036	12,764	76,968,958
1925	65	87,585,678	16,098,858	13,872	119,109,701
1926	65	69,357,890	15,974,822	13,772	102,814,471
1927	68	51,434,428	16,229,352	13,826	84,459,666
1928	66	52,048,921	15,738,360	13,629	83,707,199
1929	67	53,034,427	16,853,664	14,450	93,148,770
1930	65	50,849,268	14,838,020	13,081	75,853,910
1931	70	47,794,925	14,926,387	13,060	76,819,045
Bread and other Bakery Products					
1919	1,309	40,586,783	9,336,181	8,583	66,017,267
1920	1,083	47,216,099	11,132,441	8,698	76,825,786
1921	1,125	33,596,767	11,328,144	8,852	63,972,784
1922	1,026	30,666,836	10,557,076	9,185	60,836,491
1923	1,099	32,379,305	11,974,120	9,288	64,733,168
1924	1,072	32,793,242	12,022,863	9,200	65,723,363
1925	1,031	36,517,214	11,390,333	8,429	68,845,944
1926	1,090	38,573,698	11,558,473	8,697	74,014,253
1927	1,044	37,101,802	11,028,342	8,473	73,706,221
1928	1,108	38,297,898	11,351,600	8,770	76,006,262
1929	1,077	39,664,130	13,700,195	10,413	80,270,302
1930	1,132	36,656,100	13,036,847	10,041	78,462,469
1931	1,119	29,586,755	12,753,659	10,078	67,805,420
Foundry and Machine-Shop Products					
1919	575	$39,360,048	$36,734,431	27,801	$112,274,485
1920	569	68,534,988	52,459,471	34,473	166,340,007
1921	515	35,452,972	26,755,815	20,021	112,172,802
1922	541	29,172,980	27,306,697	20,837	86,448,581
1923	553	38,728,025	36,267,289	24,660	114,929,133
1924	539	37,993,215	32,473,734	22,414	106,461,283
1925	500	31,046,164	28,919,791	19,541	90,638,434
1926	502	34,479,344	30,851,687	20,419	99,321,009
1927	496	30,759,703	30,059,274	19,898	94,149,409
1928	475	32,606,432	30,447,463	19,803	99,613,068
1929	465	36,893,962	32,969,609	21,243	114,965,036
1930	442	28,219,034	27,582,822	18,492	88,162,402
1931	414	17,806,400	18,841,627	14,748	60,143,267

[1] The census for the years 1919, 1921, 1923, 1925, 1927, 1929, and 1931 included certain publishing establishments not canvassed in the other years specified, and data for these years, therefore, are not strictly comparable with corresponding data for the other years specified.

[2] Includes Radio apparatus, heretofore tabulated with this industry and retained here for purposes of comparison. Presented separately, Radio apparatus registered 16 establishments with product value of $11,228,127.

Table 23. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Clothing, Men's and Women's, Including Work Clothing					
1919	465	41,573,579	12,823,878	13,127	71,902,620
1920	460	41,457,483	14,343,454	12,129	73,533,991
1921	443	26,471,823	11,219,297	10,444	50,262,173
1922	442	28,925,106	12,763,975	11,519	53,946,067
1923	511	38,703,840	14,981,950	12,727	70,819,700
1924	486	34,899,421	13,405,639	11,549	63,904,828
1925	439	33,158,905	12,023,478	10,665	61,187,773
1926	483	36,284,848	14,263,815	12,115	68,554,055
1927	472	37,713,123	15,131,382	13,163	72,296,725
1928	500	37,087,769	14,354,468	13,310	69,021,128
1929	500	41,841,471	15,087,955	13,174	78,174,045
1930	489	35,613,636	14,398,266	13,540	65,951,764
1931	487	31,017,083	13,216,215	14,052	59,920,324
Paper and Wood Pulp					
1919	78	53,763,884	14,642,413	12,960	87,159,890
1920	82	89,158,276	21,633,105	15,215	145,017,866
1921	81	40,614,356	12,592,648	12,427	62,865,216
1922	79	49,356,524	15,004,725	13,490	84,440,050
1923	82	57,601,310	17,085,424	13,324	93,641,621
1924	81	53,194,877	17,047,879	13,423	90,146,594
1925	84	54,854,405	16,424,005	12,915	90,126,831
1926	83	56,818,516	17,467,461	13,205	98,598,943
1927	83	51,815,477	15,904,292	12,368	93,177,974
1928	84	53,105,186	16,420,703	12,602	93,939,888
1929	76	50,091,469	16,648,893	12,361	95,084,573
1930	76	41,204,938	14,881,473	11,603	78,339,273
1931	78	27,898,672	11,960,645	10,652	58,148,375
Leather: Tanned, Curried, and Finished					
1919	131	$82,017,255	$19,211,156	15,180	$129,249,131
1920	132	57,410,060	17,913,018	12,447	88,344,819
1921	119	35,801,421	11,389,125	9,038	61,106,452
1922	122	31,383,055	13,298,797	10,813	57,669,973
1923	122	40,439,335	15,340,403	11,437	71,098,478
1924	123	42,867,178	15,023,961	11,010	70,603,298
1925	118	42,430,939	14,178,183	10,438	70,708,050
1926	123	40,698,690	14,016,402	10,241	66,600,352
1927	115	47,860,959	14,587,638	10,768	77,649,457
1928	124	53,764,692	14,531,789	10,975	82,268,326
1929	113	60,240,934	14,206,501	10,707	88,348,403
1930	107	41,890,582	11,645,166	8,953	63,591,977
1931	99	29,966,431	10,697,504	8,658	50,051,338
Rubber Goods, including Rubber Tires and Inner Tubes[1]					
1919	47	47,627,882	11,538,080	9,600	86,358,067
1920	49	42,001,564	11,779,505	8,130	85,778,471
1921	52	30,349,377	9,005,575	7,847	62,714,484
1922	61	37,096,491	11,924,464	10,197	75,829,765
1923	59	48,409,783	14,698,488	11,388	84,098,920
1924	58	47,010,344	13,393,684	10,406	84,681,207
1925	52	61,611,753	13,904,175	10,740	108,594,705
1926	56	71,670,965	13,648,767	10,444	110,305,176
1927	64	56,715,715	13,298,241	10,364	97,717,724
1928	68	53,136,600	13,714,866	10,552	89,672,751
1929	62	44,604,202	12,400,228	9,764	76,439,857
1930	65	33,032,734	10,459,597	8,658	62,870,682
1931	60	19,928,837	7,758,322	6,728	46,371,115
Meat Packing, Wholesale					
1919	40	101,235,340	5,391,004	4,307	110,238,038
1920	32	73,125,278	4,868,116	3,436	89,234,029
1921	33	41,052,369	3,798,379	2,986	48,810,846
1922	27	46,193,957	3,490,994	3,153	55,093,617
1923	33	47,128,857	4,604,972	3,651	56,765,176
1924	32	46,832,366	4,679,275	3,506	56,799,375
1925	33	52,620,735	4,121,768	3,292	60,710,531
1926	28	54,604,670	3,759,969	3,000	63,220,783
1927	40	51,139,522	4,127,491	3,191	58,796,506
1928	37	54,604,066	3,855,033	2,988	63,509,485
1929	33	56,599,409	3,572,432	2,594	64,354,688
1930	31	51,030,796	3,435,693	2,530	59,425,738
1931	31	32,764,048	2,871,319	2,123	39,704,308

[1] Exclusive of rubber boots and shoes.

Table 23. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Gas, Manufactured, Illuminating and Heating					
1919	51	$10,773,564	$3,557,468	2,654	$24,231,095
1920	51	12,169,919	3,718,543	2,427	31,356,276
1921	47	13,679,896	4,324,527	2,524	33,808,668
1922	47	13,116,729	4,436,757	2,825	34,034,561
1923	49	15,150,715	6,342,914	4,146	37,188,227
1924	48	11,781,221	5,325,159	3,405	34,245,470
1925	46	13,888,004	6,205,743	4,229	36,659,265
1926	45	10,086,179	4,489,990	2,789[1]	31,806,393
1927	41	16,201,703	6,046,546	4,079	38,657,688
1928	40	13,729,991	5,609,403	3,437[1]	37,469,887
1929	39	15,835,388	6,516,333	4,096	41,264,782
1930	37	11,849,481	5,800,474	3,371[1]	40,193,954
1931	32	13,104,109	5,170,219	3,304	38,598,658
Confectionery					
1919	130	34,874,323	7,512,037	10,753	60,556,558
1920	152	39,295,866	8,617,406	9,836	61,280,594
1921	146	24,643,965	6,545,314	8,202	42,975,013
1922	144	23,628,231	6,670,030	8,006	41,599,379
1923	149	26,504,012	7,475,548	8,805	48,618,574
1924	141	24,968,335	7,456,716	7,899	45,875,376
1925	134	25,842,869	6,755,486	7,625	49,333,972
1926	147	26,910,860	7,472,929	8,372	50,669,112
1927	148	28,308,227	7,243,925	8,373	49,673,740
1928	153	25,547,674	6,916,799	7,489	46,124,991
1929	144	22,821,300	6,744,576	7,471	43,932,366
1930	144	19,994,216	6,291,556	6,541	37,815,816
1931	127	14,646,330	4,983,946	5,943	30,176,229
Knit Goods					
1919	77	31,172,563	11,364,030	12,751	52,424,235
1920	71	31,871,942	10,728,570	10,625	54,059,574
1921	81	20,251,896	8,969,044	10,497	34,924,807
1922	88	23,801,579	10,467,806	11,663	44,219,560
1923	87	25,923,485	10,605,684	11,652	46,834,545
1924	88	20,450,911	9,443,959	9,863	38,487,391
1925	88	25,902,556	9,715,424	10,551	46,386,519
1926	92	22,362,814	9,512,858	10,088	44,060,059
1927	93	22,315,903	9,339,035	9,660	43,936,724
1928	90	21,070,158	9,162,848	9,092	40,165,755
1929	86	20,401,873	8,945,286	8,817	41,050,135
1930	80	16,981,448	7,878,614	8,133	34,479,056
1931	70	14,997,853	6,765,890	7,636	29,460,966
Ship and Boat Building, Steel and Wooden, and Repair Work					
1919	59	$22,055,919	$34,105,944	18,804	$64,764,545
1920	43	13,812,531	12,400,243	5,816	31,757,906
1921	39	9,707,538	7,495,008	6,015	22,312,448
1922	39	3,849,721	4,732,473	3,703	10,167,786
1923	39	5,021,050	5,957,599	3,977	14,078,845
1924	39	3,885,897	5,421,364	3,268	12,643,165
1925	41	5,558,093	6,954,277	4,167	14,187,348
1926	37	4,878,883	8,209,632	5,079	14,803,765
1927	38	4,402,476	6,478,876	4,185	14,151,632
1928	35	4,775,415	5,954,352	3,413	13,439,146
1929	40	5,583,995	6,499,543	3,635	16,449,438
1930	40	9,663,618	7,558,162	4,598	19,871,065
1931	35	12,970,551	7,669,775	4,846	27,711,085
Furniture, including Store and Office Fixtures					
1919	161	10,658,248	6,637,133	6,342	26,670,120
1920	144	12,882,852	9,747,660	7,520	32,094,031
1921	160	10,941,342	6,922,987	6,251	24,039,399
1922	177	11,536,245	8,412,753	7,306	26,994,042
1923	189	14,616,185	9,965,802	8,097	34,691,239
1924	187	15,021,243	10,160,663	7,863	34,609,438
1925	191	16,050,928	10,172,074	7,834	33,638,635
1926	208	16,040,692	11,504,758	8,440	37,530,228
1927	194	16,682,116	11,027,153	8,077	36,796,137
1928	220	16,675,734	11,110,481	8,224	37,464,410
1929	217	19,029,630	11,926,867	8,598	41,921,577
1930	222	13,256,836	9,585,968	7,357	32,057,862
1931	204	10,541,937	7,051,101	6,153	24,143,874

[1] Does not include street men.

Table 23. — Continued

Years	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
		Textile Machinery and Parts			
1919	116	23,477,372	20,712,227	17,413	65,901,370
1920	107	32,288,692	28,412,882	19,686	81,595,711
1921	127	23,199,148	20,836,446	16,479	67,204,551
1922	124	16,955,862	17,279,848	14,846	52,888,931
1923	137	24,518,360	24,318,310	18,668	69,343,009
1924	129	14,986,290	18,352,490	14,666	50,253,757
1925	123	16,584,208	17,769,454	13,687	51,411,150
1926	130	15,333,814	16,786,043	12,623	47,739,905
1927	119	15,008,418	16,242,087	12,009	46,865,937
1928	119	12,350,981	13,651,765	10,399	39,082,682
1929	111	12,467,673	14,233,661	10,597	41,202,970
1930	109	8,423,447	10,512,566	8,602	27,033,415
1931	102	6,791,520	8,865,356	7,527	24,090,354
		Silk Goods			
1919	21	$19,243,483	$5,039,601	5,697	$34,193,951
1920	22	23,302,010	6,067,423	5,626	33,636,882
1921	23	13,162,836	4,467,028	5,864	23,604,010
1922	25	15,427,762	5,988,741	6,197	28,097,042
1923	24	18,820,913	6,782,643	6,448	33,646,974
1924	25	15,033,466	6,176,952	5,682	29,076,154
1925	27	21,512,814	6,840,098	6,497	36,608,014
1926	28	18,984,539	7,425,459	6,559	33,100,630
1927	33	23,218,826	7,615,872	7,357	38,220,144
1928	30	16,401,463	7,137,603	6,782	32,022,695
1929[1]	42	20,959,668	7,105,466	7,390	37,412,704
1930[1]	41	12,223,525	5,893,804	5,684	24,631,823
1931[1]	38	10,468,547	5,809,739	6,939	22,920,329

[1] Includes rayon goods.

APPENDIX

CHARTS

Plate 1

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING ESTABLISHMENTS IN MASSACHUSETTS

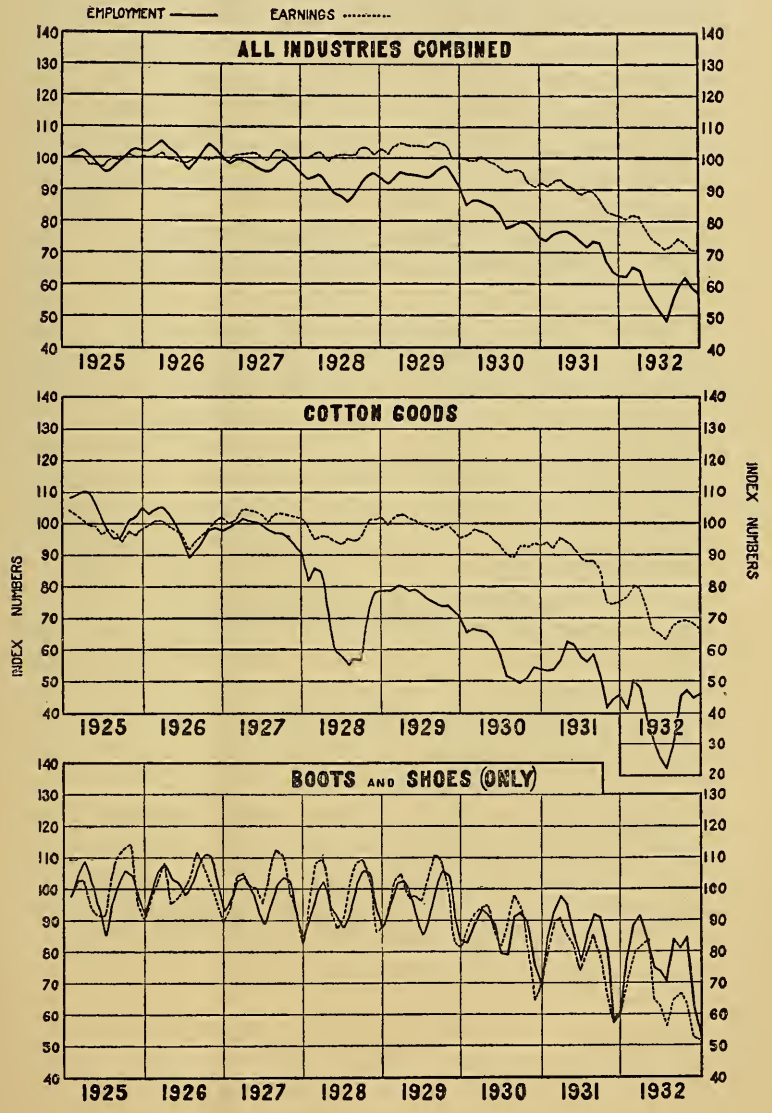


Plate 2

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING, etc.,—(*Continued*)

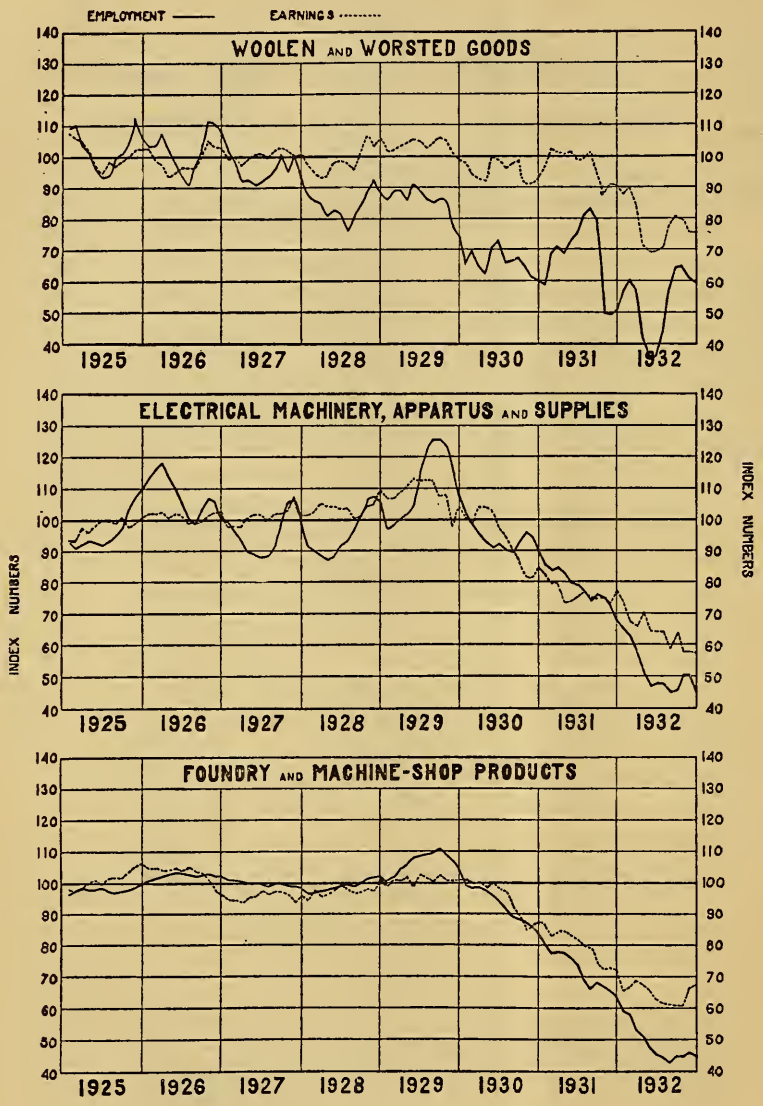


Plate 3

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING, etc.,—(*Continued*)

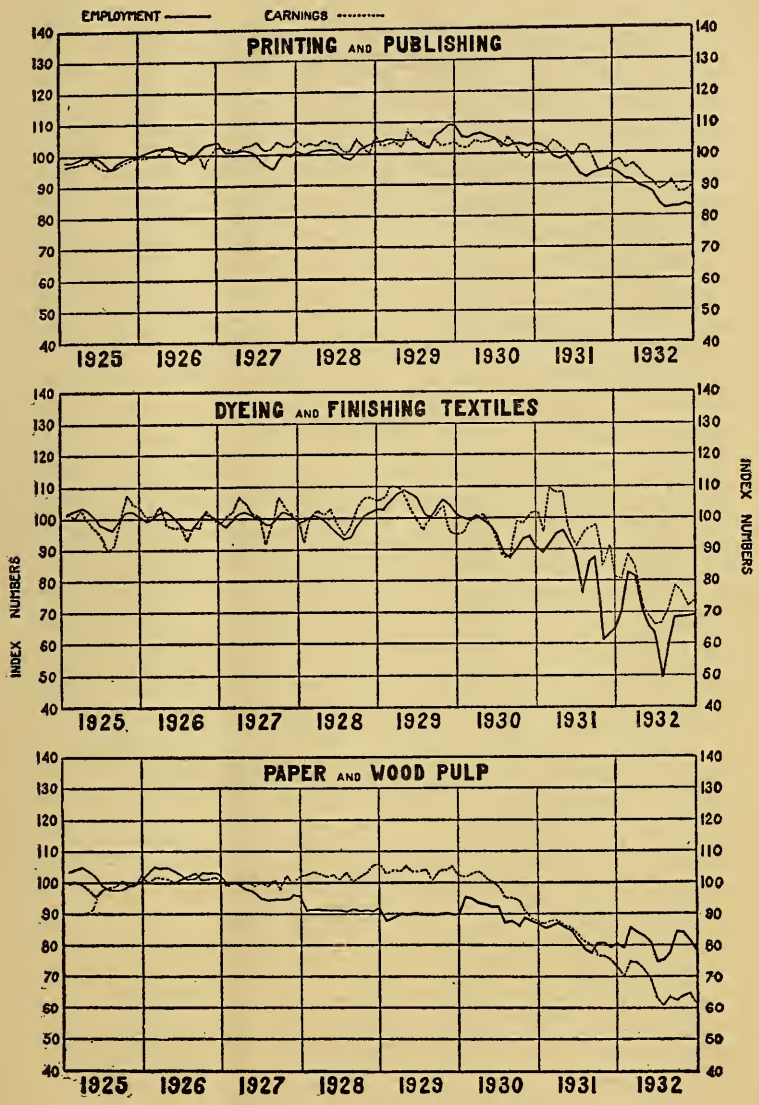


Plate 4

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING, etc.,—(*Continued*)

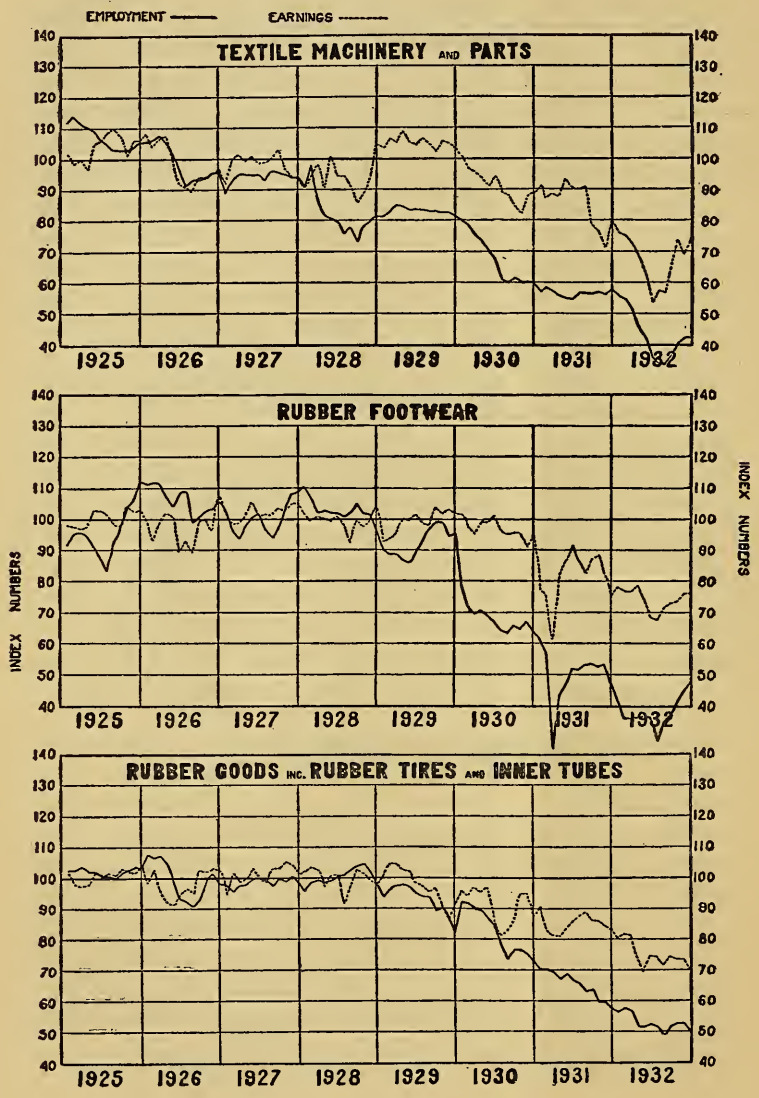


Plate 5

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING, etc.,—(*Continued*)

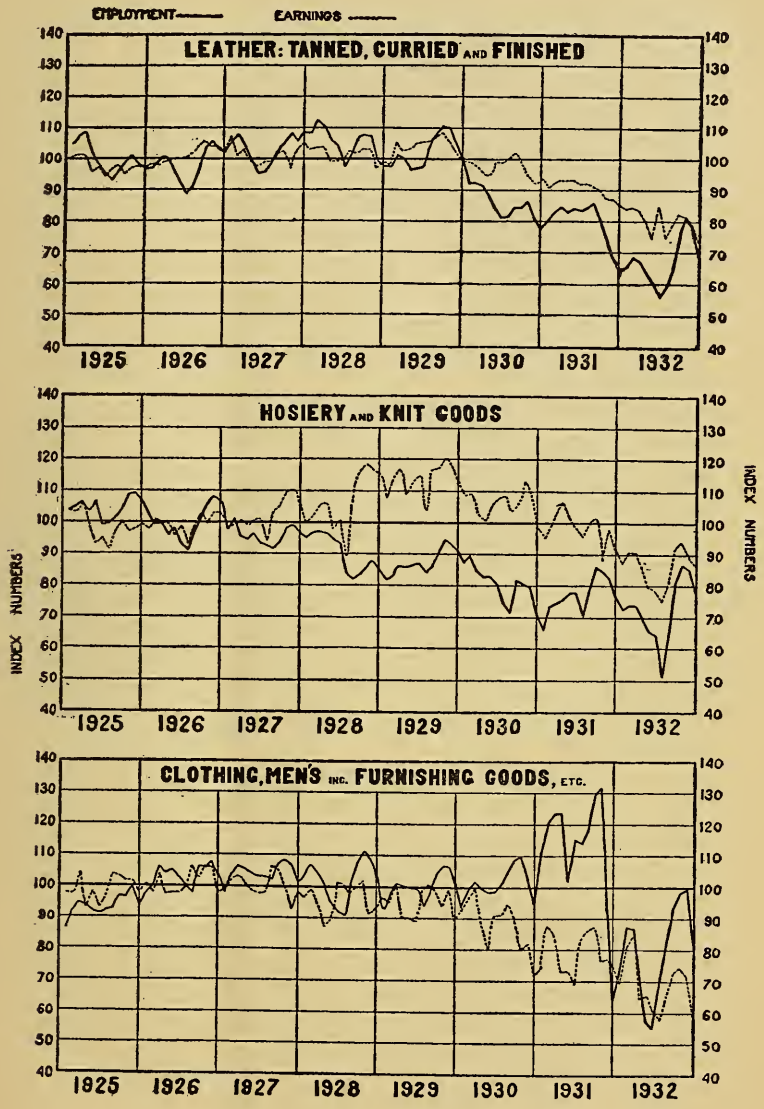


Plate 6

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING, etc.,—(*Continued*)

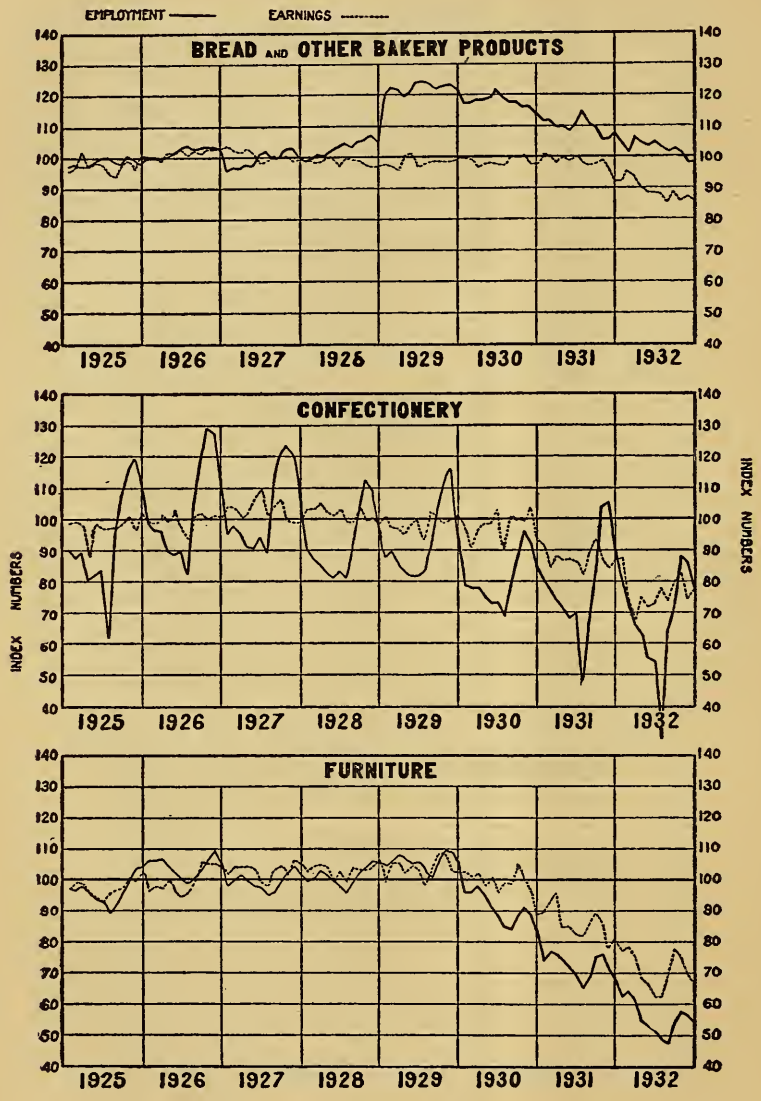


Plate 7

TREND OF EMPLOYMENT AND OF AVERAGE WEEKLY EARNINGS IN MANUFACTURING, etc.,—(*Concluded*)

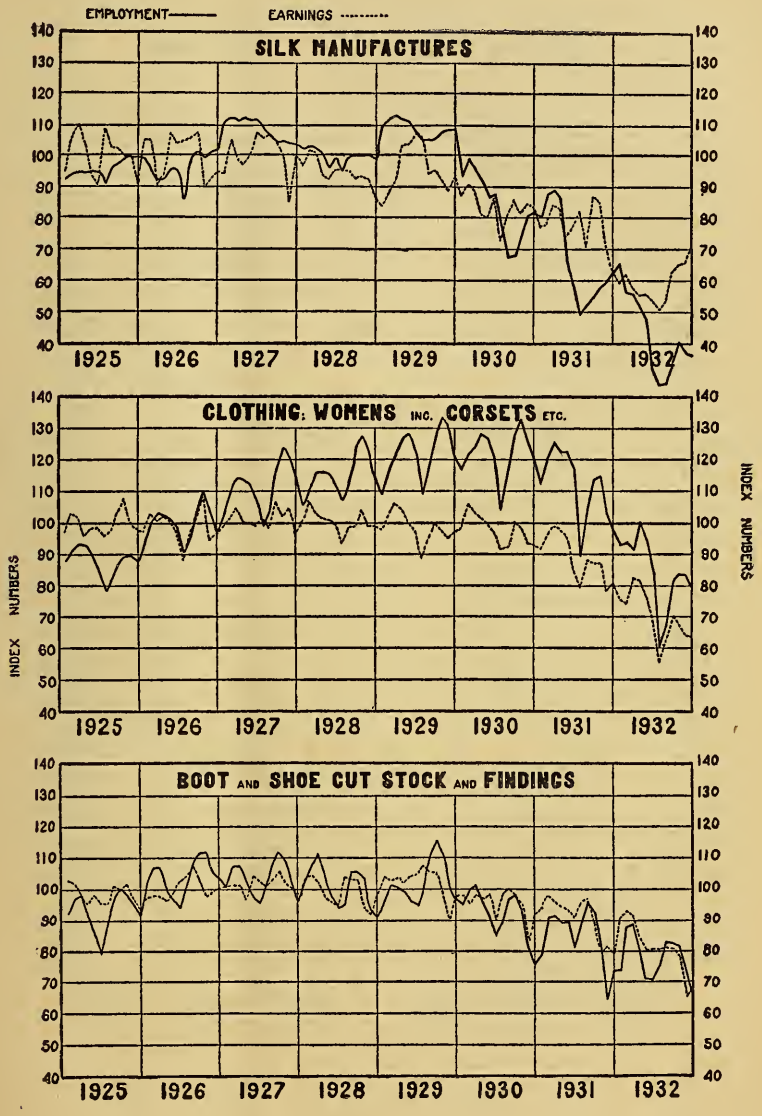


Plate 8

TREND OF EMPLOYMENT IN MANUFACTURING IN 14 LEADING INDUSTRIAL CITIES; BY MONTHS, 1931-1932

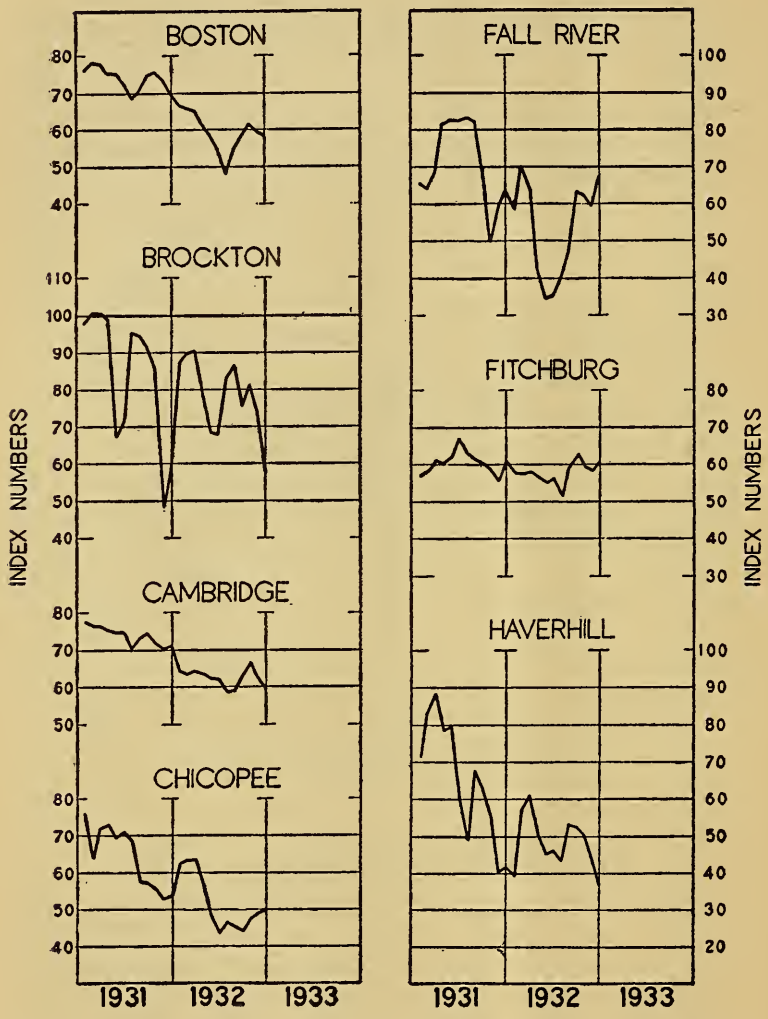


Plate 9

TREND OF EMPLOYMENT IN 14 LEADING INDUSTRIAL CITIES; BY MONTHS, 1931-1932 (CONTINUED)

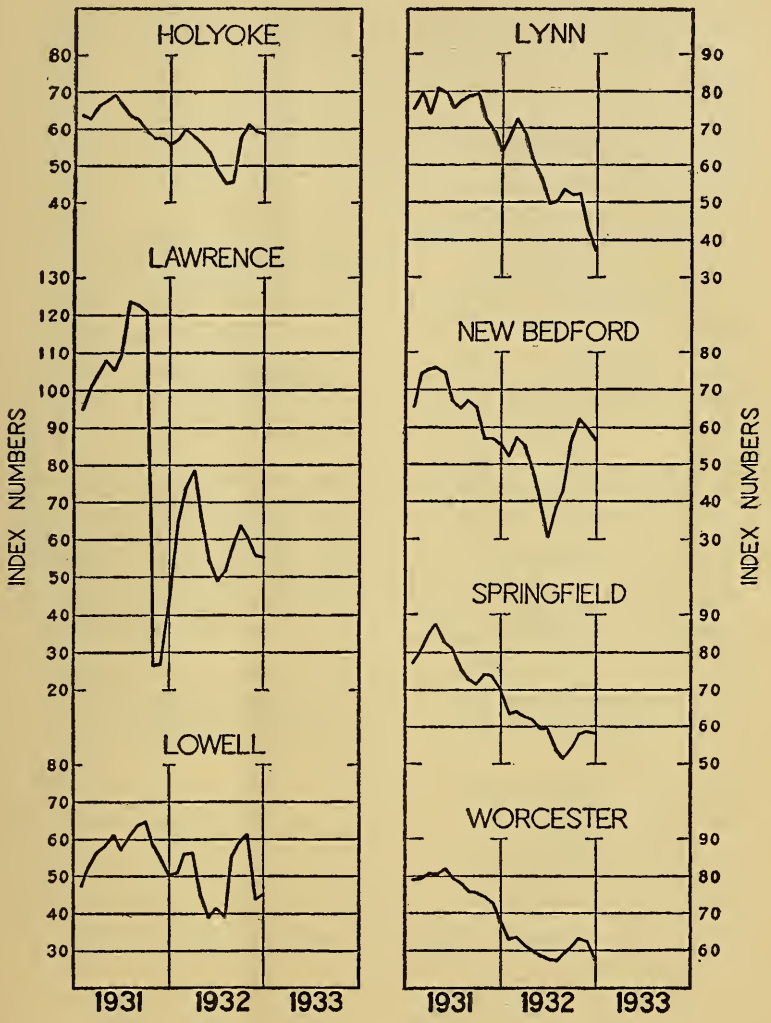


Plate 10

TREND OF EMPLOYMENT IN WHOLESALE AND RETAIL TRADE: BY MONTHS; SEPTEMBER 1931-DECEMBER 1932

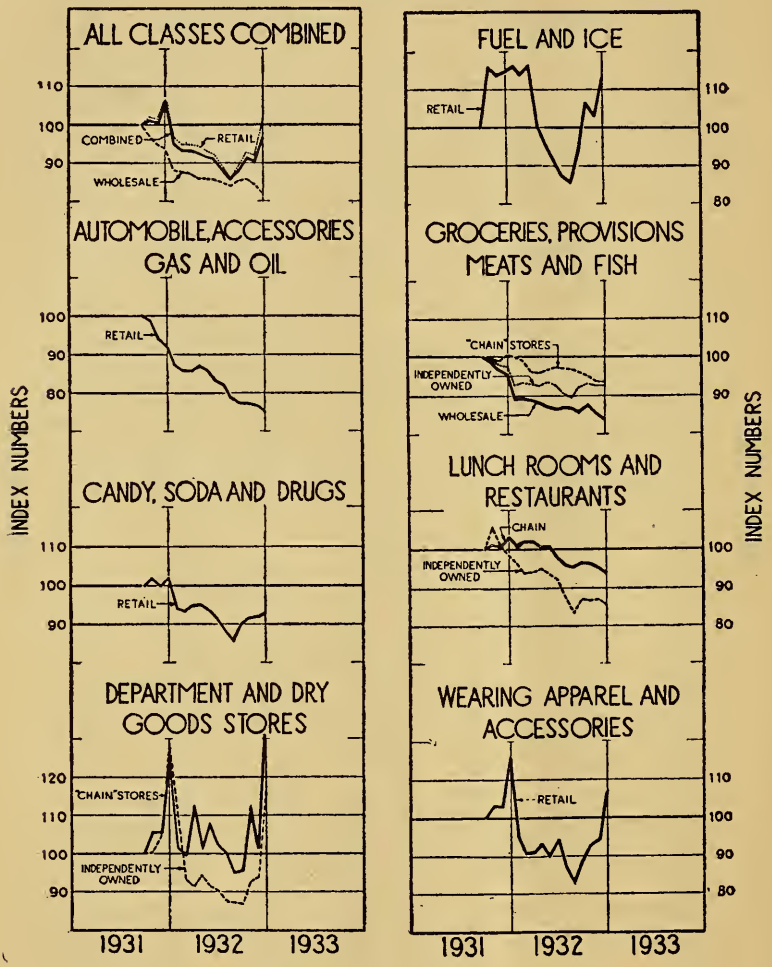


Plate 11

TOTAL WAGES PAID IN WHOLESALE AND RETAIL TRADE; BY MONTHS, SEPTEMBER 1931-DECEMBER 1932

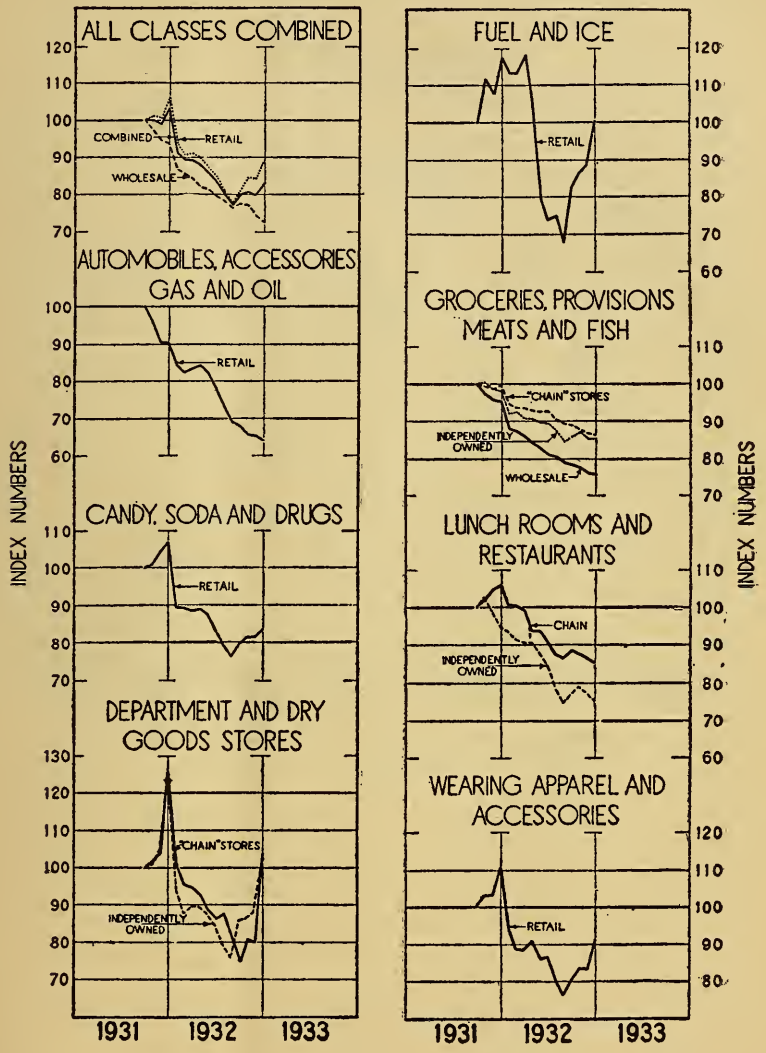


Plate 12

TREND OF EMPLOYMENT, OF TOTAL WAGES PAID, AND MAN-HOURS WORKED IN BUILDING CONSTRUCTION: BY MONTHS; APRIL 1927-DECEMBER 1932

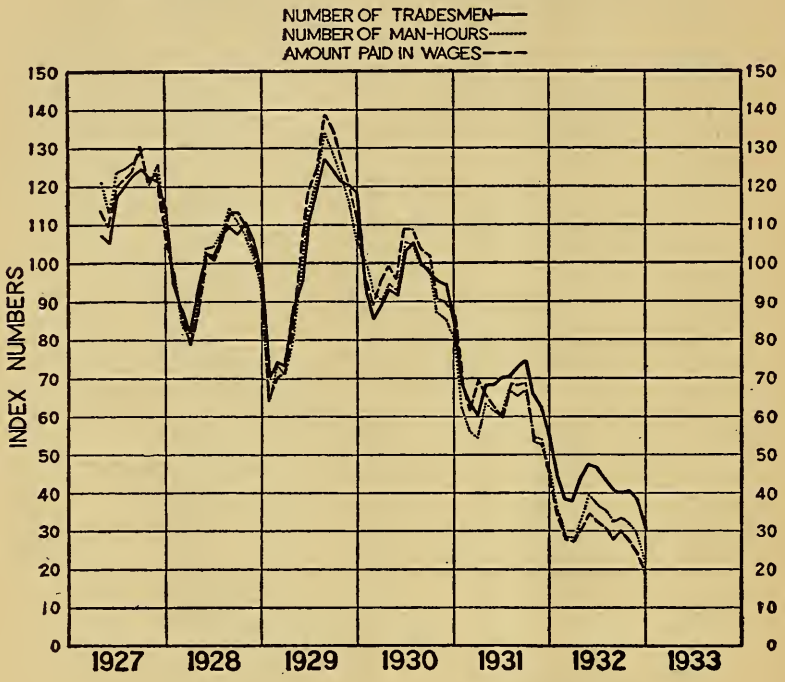


Plate 13

TREND OF EMPLOYMENT OF HIGHWAY WORKMEN; BY MONTHS, SEPTEMBER 1931-DECEMBER 1932

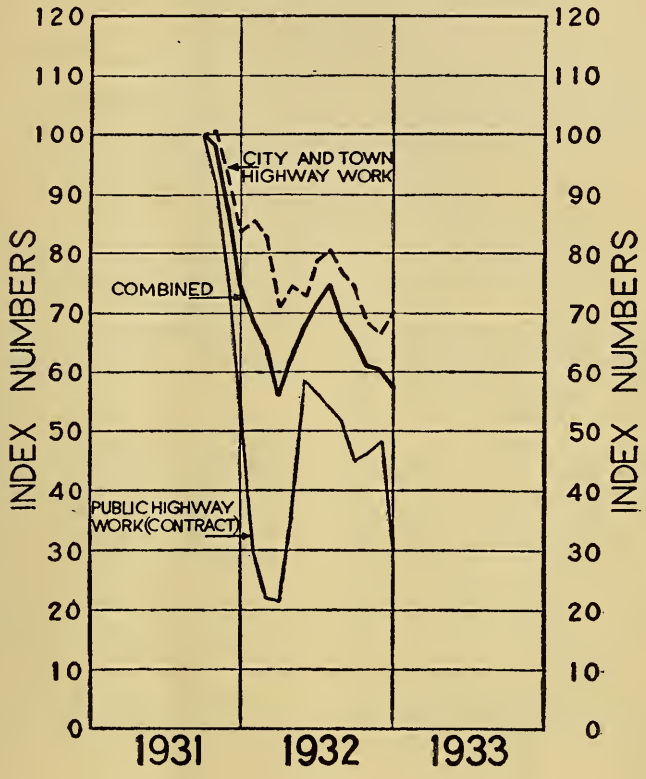


Plate 14

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN PUBLIC UTILITY COMPANIES: 1930, 1931, 1932; BY MONTHS

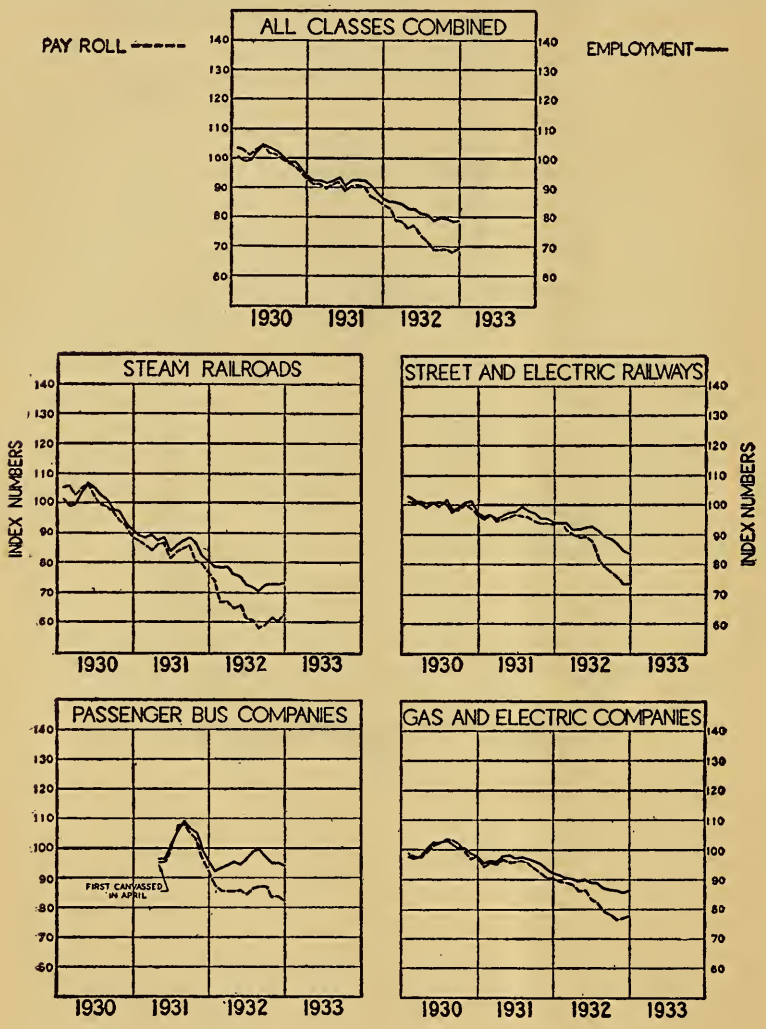


Plate 15

TREND OF EMPLOYMENT AND OF AMOUNT PAID IN WAGES IN MUNICIPALITIES: BY MONTHS; SEPTEMBER 1931-DECEMBER 1932

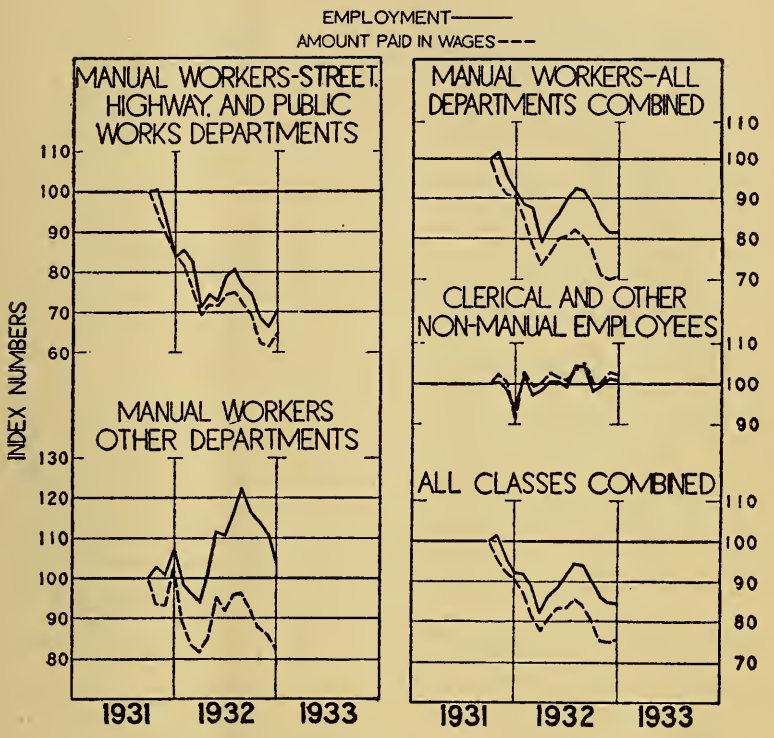


Plate 16

TREND OF EMPLOYMENT IN EIGHT MISCELLANEOUS CLASSES OF EMPLOYMENT: BY MONTH; SEPTEMBER 1931-DECEMBER 1932

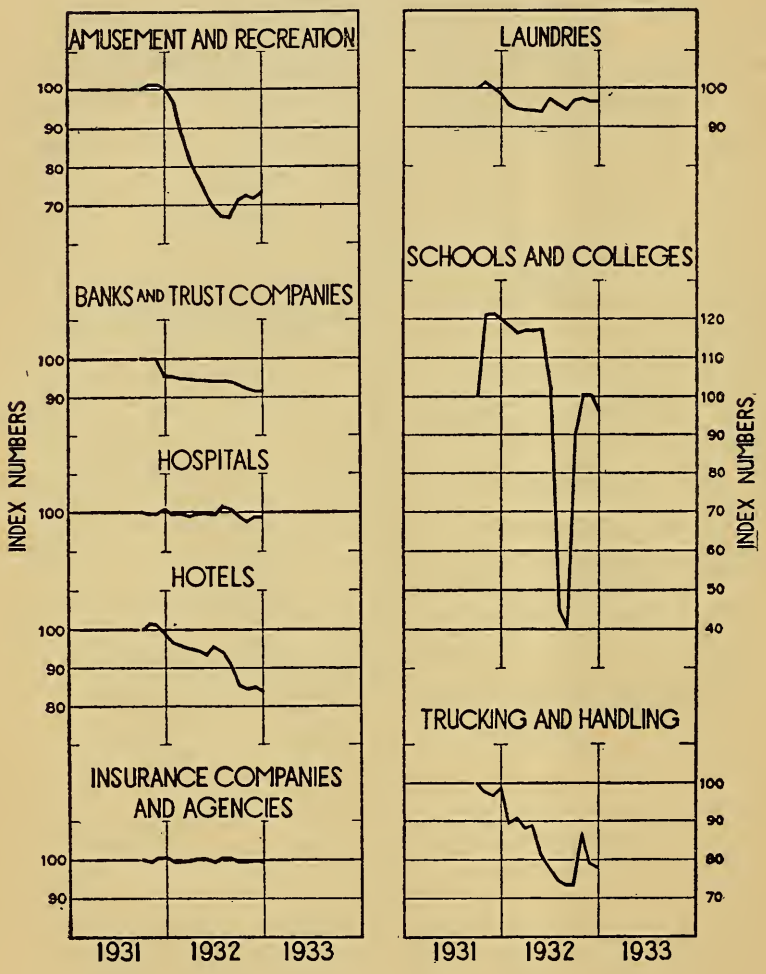
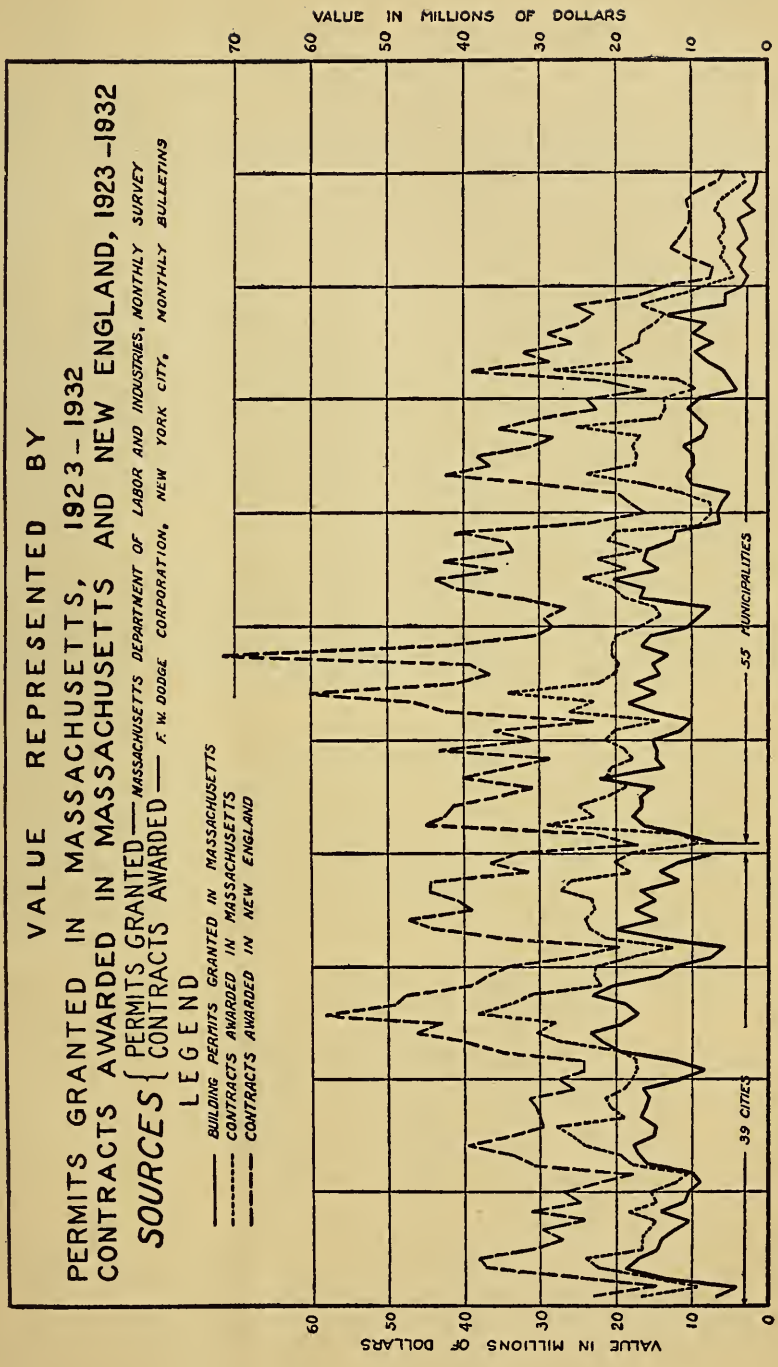


Plate 17


VALUE REPRESENTED BY
PERMITS GRANTED IN MASSACHUSETTS, 1923-1932
CONTRACTS AWARDED IN MASSACHUSETTS AND NEW ENGLAND, 1923-1932
SOURCES { PERMITS GRANTED — MASSACHUSETTS DEPARTMENT OF LABOR AND INDUSTRIES, MONTHLY SURVEY
CONTRACTS AWARDED — F. W. DODGE CORPORATION, NEW YORK CITY, MONTHLY BULLETINS
LEGEND
BUILDING PERMITS GRANTED IN MASSACHUSETTS
CONTRACTS AWARDED IN MASSACHUSETTS
CONTRACTS AWARDED IN NEW ENGLAND
VALUE IN MILLIONS OF DOLLARS
0
10
20
30
40
50
60
70
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
39 CITIES
55 MUNICIPALITIES

REPORT ON PUBLIC EMPLOYMENT OFFICES

ROSWELL F. PHELPS, *Acting Director*

INTRODUCTORY

This report covers the operations in 1932 of the four public employment offices maintained by the Commonwealth, two of which are located in Boston, one in Springfield and one in Worcester. These offices are administered by the Commissioner of Labor and Industries, and are under the general supervision of a Director. At each office there is a local superintendent in charge, except that in Boston the superintendent of the main office also has charge of the mercantile office, which virtually is a branch of the main office.

Although not a statistical function, the general supervision of these offices was assigned to the Director of the Division of Statistics when that division was organized in 1920 (following the consolidation of departments on December 1, 1919), and the report on the work of the offices appeared thereafter as a part of the report of the Division of Statistics. On April 1, 1932, a full-time Director of Public Employment Offices was appointed (to which reference is made later in this report), and a separate Division of Public Employment Offices was organized within the Department. Accordingly, the report of the work of these offices is now issued as a separate report instead of being included (as heretofore) in the report of the Division of Statistics.

The statistical data herein presented relate primarily to the work of the offices during the calendar year, 1932, but summary data for prior years are also presented for purposes of comparison, and a chart, appended to the report shows, graphically, the fluctuations from month to month in the number of positions reported filled by each of the four offices, and by the four offices combined during the year, 1925 to 1932.

1. ORGANIZATION OF THE DIVISION OF PUBLIC EMPLOYMENT OFFICES

Early in January, 1932, Mr. Walter H. Neaves, of Milton, who had had long experience in employment office work as personnel manager of a large Massachusetts corporation, was appointed as an Expert Assistant, to have general supervision over the Public Employment Offices. On April 1, after the Commissioner had created within the Department a separate Division of Public Employment Offices, Mr. Neaves was appointed director with the approval of the Governor and Council. These offices were formerly under the immediate supervision of the Director of the Division of Statistics.

The organization of a separate division had been under consideration for several years, and the Special Commission on the Stabilization of Employment, in its preliminary report in December, 1931, urgently recommended the establishment of such separate division, with a Director in charge who would be able to devote his entire time to the work of administering the offices and enlarging their usefulness. Mr. Neaves served as director until October 17, 1932, when he resigned to accept a position with the Federal Home Loan Bank in Cambridge. He still maintains an active connection with the offices as chairman of the Advisory Committee mentioned below.

No successor to Mr. Neaves was appointed during the remainder of the fiscal year, and Mr. Roswell F. Phelps, who formerly had supervision over these offices in addition to his statistical duties as Director of Statistics, acted as Director of these offices during this period.

As part of a program to widen understanding by employers and the community generally of the present and potential usefulness of the State public employment offices, Commissioner Smith appointed (in November)

the following to serve as an advisory committee to the Boston offices:—

Walter H. Neaves, Chairman, Executive Vice-president, Home Loan Bank, Cambridge.
Edward Dana, General Manager, Boston Elevated Railway.
David F. Edwards, President, Saco-Lowell Shops.
A. Lincoln Filene, Chairman of the Board, William Filene's Sons Co., Boston.
J. Arthur Moriarty, President, Boston Central Labor Union.
A. R. Newhall, President, Hood Rubber Company, Watertown.
E. A. Johnson, President, Boston Building Trades Council.

2. Relocation of the Boston Offices

The main office in Boston, which, since October 1, 1921, had been located at 23 Pearl Street, was removed, on April 1, 1932, to 169 Congress Street, and the Mercantile Branch, which since its establishment in January, 1922, had been located at 25 Tremont Street, was removed, on March 1, 1932, to 157 Federal Street. The new offices are now in much more commodious and attractive quarters, and should afford an opportunity for more efficient service both to employers and persons seeking employment. The floor space now occupied by these offices is somewhat less than that occupied at the former locations, but the layout of each office is better suited to the requirements. At the main office, separate entrances for adult male and female applicants, and for boys, are now provided, instead of only one entrance for all applicants, which was a very unsatisfactory feature of the arrangement at the former location.

The new offices are in premises which have been leased, in one case, for a term of two years and five months, and in the other, for a term of two years, and as a result of a general reduction in rental charges for office space in a deflated real estate market, it was possible to effect a saving in charges for rental of $150 and $25 per month for the premises occupied by the respective offices.

3. The Labor Market

At the close of 1929, when the present depression first became evident, there was a marked decrease in the demand for labor by employers within the districts served by the four state public employment offices, and, consequently, a corresponding decrease in the number of positions reported filled by these offices. The effect of the depression in 1930, 1931 and 1932 on the work of these offices is indicated by records presented in the following summary.

Table 1.—Number of Positions Reported Filled by the Four State Public Employment Offices, 1925 - 1932.[1]

Years	Boston (Main Office)	Boston (Mercantile Office)	Springfield	Worcester	Total—Four Offices
1925	14,200	1,538	11,068	8,000	34,806
1926	14,933	1,494	10,252	7,615	34,294
1927	13,721	1,103	8,168	5,866	28,858
1928	13,052	1,656	8,185	5,431	28,324
1929	13,558	1,238	9,071	6,290	30,157
1930	8,760	798	5,753	4,119	19,430
1931	6,149	763	4,092	3,051	14,055
1932	4,373	638	3,604	2,167	10,782

On reference to Table 1, it will be observed that the number of positions reported filled by the four offices, combined, in 1932 (the third year of the depression) was 10,782, or only 35.7 per cent of the number reported filled (30,157) in 1929—a fairly normal year. Each of the four

[1] A chart showing, graphically, the fluctuations from month to month in the number of positions reported filled by each of the four offices, and by the four offices, combined, during the years 1925 to 1932, is appended to this report.

offices were affected likewise, to a greater or less extent. During the last two months in 1932 some increases in the number of persons called for by employers and in the number of positions reported filled were recorded, which facts furnished some basis for the expectation that a gradual long-term improvement in the demand for labor by employers had at last begun.

Efforts have been made, through advertising, by telephone, circular letters and by personal calls on employers by representatives of the offices, to secure positions for the greatly increased number of applicants for employment, but under the unfavorable conditions prevailing during the past three years, such efforts have not proved effective in any large measure. Occasionally the registrars have secured new orders, and have added a few employers to the list of those who have been accustomed to make use of the offices, but usually the reports by the registrars were to the effect that the employers visited were endeavoring to retain those still employed, and the first additions to their force would be those whom they have found it necessary to lay off. Furthermore, employers are being urged by many representatives of social welfare and other agencies to employ persons who are in distress because of lack of work, and these agencies have become strong competitors of the State offices.

Because of these circumstances, the results obtained by these offices, as indicated by the number of positions obtained for applicants, were not heartening, particularly in view of the fact that there has been an unusual pressure of work in interviewing the greatly increased number of applicants and in seeking positions for them.

Notwithstanding the large decrease in the demand for help by employers and the consequent reduction in the number of positions reported filled by the State offices, it is believed, nevertheless, that some definite improvement in the character of the service rendered has been made. During the past year the applicants for the higher grades of work, including executive positions, who never before have had occasion to seek positions at employment offices, either public or private, and were very reluctant to do so, have registered at the State offices. A number of such persons have been placed and there is every reason to believe that the offices' hold on this new type of clientele will be continued after the depression, thereby broadening the usefulness of the service.

4. Statistical Summary

The principal data relative to the work of the offices during the year 1932, with corresponding data for the year, 1931, are presented in Table 2.

Positions Reported Filled. The total number of positions reported filled during the year 1932, by the four offices combined, was 10,782, which was less by 3,273, or 23.3 per cent, than the number (14,055) reported filled in 1931. At each of the offices there were large decreases in the number of positions reported filled in 1932, as compared with 1931, as follows: Boston (main office), 28.9 per cent; Boston (mercantile office), 16.4 per cent; Springfield, 11.9 per cent; and Worcester, 29.0 per cent.

Persons Called for by Employers. During the year, 1932, the total number of persons called for by employers at the four offices combined was 13,257, which was less by 3,658, or 21.6 per cent, than the number (16,915) called for in 1931. At each of the four offices there were decreases in the number of persons called for by employers in 1932, as compared with

Table 2. — Summary of Business of the Four State Public Employment Offices During the Years 1932 and 1931.

Offices	1932			1931		
	Persons Called for by Employers	Persons Referred to Positions	Positions Reported Filled	Persons Called for by Employers	Persons Referred to Positions	Positions Reported Filled
Boston — main office	5,752	8,573	4,373	7,612	10,732	6,149
Boston — mercantile office	737	994	638	841	1,025	763
Springfield office	3,965	4,609	3,604	4,706	5,627	4,092
Worcester office	2,803	3,414	2,167	3,756	4,358	3,051
Totals — four offices	*13,257*	*17,590*	*10,782*	*16,915*	*21,742*	*14,055*

1931, as follows: Boston (main office), 24.4 per cent; Boston (mercantile office), 12.4 per cent; Springfield, 15.7 per cent; Worcester, 25.4 per cent. Of the 13,257 persons called for by employers in 1931, 10,782, or 81.3 per cent, were supplied, as compared with 83.1 per cent in 1931.

Persons Referred to Positions. The total number of persons referred to positions by the four offices combined during the year, 1932, was 17,590, which was less by 4,152, or 19.1 per cent, than the number (21,742) referred to positions in 1931. For the several offices, the percentage decreases in the number of persons referred to positions in 1932, as compared with 1931, were: Boston (main office), 20.1 per cent; Boston (mercantile office), 3.0 per cent; Springfield, 18.1 per cent; and Worcester, 21.7 per cent. In 1932 the total number of positions reported filled was 10,782, and, in order to fill these positions, 17,590 persons were referred to the employers, or an average of 1.6 persons for each position reported filled, which average was nearly the same as that in 1931.

Records by Sex. In Table 3 principal data for the years 1932 and 1931 are presented by sex for each of the four offices, separately, and for the four offices combined.

Table 3. — Summary of Business of the Four State Public Employment Offices During the Years 1932 and 1931: by Offices and Sex

Classification	1932				1931			
	Registrations	Persons Called for by Employers	Persons Referred to Positions	Positions Reported Filled	Registrations	Persons Called for by Employers	Persons Referred to Positions	Positions Reported Filled
Boston—main office:								
Males	12,309	3,947	5,990	3,049	4,972	5,197	7,353	4,202
Females	4,668	1,805	2,583	1,324	1,962	2,415	3,379	1,947
Totals	*16,977*	*5,752*	*8,573*	*4,373*	*6,934*	*7,612*	*10,732*	*6,149*
Boston—mercantile office:								
Males	4,591	207	344	150	2,512	173	197	134
Females	3,933	530	650	488	3,709	668	828	629
Totals	*8,524*	*737*	*994*	*638*	*6,221*	*841*	*1,025*	*763*
Springfield:								
Males	2,723	2,908	3,060	2,872	2,414	3,063	3,492	2,948
Females	1,632	1,057	1,549	732	2,103	1,643	2,135	1,144
Totals	*4,355*	*3,965*	*4,609*	*3,604*	*4,517*	*4,706*	*5,627*	*4,092*
Worcester:								
Males	2,602	1,504	1,702	1,309	2,485	1,922	2,144	1,732
Females	1,957	1,299	1,712	858	1,517	1,834	2,214	1,319
Totals	*4,559*	*2,803*	*3,414*	*2,167*	*4,002*	*3,756*	*4,358*	*3,051*
Four offices combined:								
Males	22,225	8,566	11,096	7,380	12,383	10,355	13,186	9,016
Females	12,190	4,691	6,494	3,402	9,291	6,560	8,556	5,039
Totals	*34,415*	*13,257*	*17,590*	*10,782*	*21,674*	*16,915*	*21,742*	*14,055*

Of the 10,782 positions reported filled during the year 1932 by the four offices combined, 7,380, or 68.4 per cent, were filled by males. At the main office in Boston, which is engaged principally in the placement of manual workers (skilled and unskilled), 69.7 per cent of the positions were filled by males. At the Springfield office the number of positions filled by males constituted 79.7 per cent of the total number of positions filled by that office. At the Worcester office, 60.4 per cent of the total number of positions were filled by males. The mercantile office in Boston, which was established primarily for the purpose of securing positions for stenographers, bookkeepers, clerks, salespeople, and other employees in stores and offices, operates in a field of employment in which females predominate, and the number of positions filled by males constituted only 23.5 per cent of the total number of positions filled by that office.

Records by Months. The principal data relative to the activities of the four offices during the years 1932 and 1931, are summarized, by months, in Table 4. The months in which the largest numbers of positions were reported filled in 1932 were December, November, April, and October, in the order named. In 1931, and in former years, there was a lessened demand for workmen on building and highway construction work during the winter months, because of seasonal conditions, and consequently the number of positions reported filled in each of these months was considerably less than in any of the other eight months of the year. In 1932, however, the number of positions reported filled in December and November exceeded the number filled in any other month of the year, which indicates that the general improvement in the demand for labor by employers at the offices toward the close of the year more than offset the usual seasonal decrease due to suspension of outside construction work.

Table 4. — Summary of Business of the Four State Public Employment Offices During the Years 1932 and 1931: By Months

Months	1932					1931				
	Office Days	Registrations	Persons Called for by Employers	Persons Referred to Positions	Positions Reported Filled	Office Days	Registrations	Persons Called for by Employers	Persons Referred to Positions	Positions Reported Filled
January	25	3,536	838	1,054	679	26	1,953	1,245	1,588	1,083
February	24	3,814	1,040	1,320	815	23	1,562	1,214	1,612	978
March	27	4,919	1,095	1,390	895	26	1,926	1,574	2,061	1,261
April	25	2,685	1,172	1,461	1,019	25	1,988	1,795	2,348	1,482
May	25	2,602	1,212	1,539	977	25	1,991	1,741	2,243	1,453
June	26 [1]	2,634	1,065	1,371	911	25 [1]	2,015	1,495	1,873	1,279
July	25	1,818	692	866	566	26	1,693	1,260	1,578	1,082
August	27	2,324	936	1,234	721	26	1,624	1,286	1,597	1,032
September	25	3,156	1,180	2,106	971	25	2,232	1,625	2,132	1,303
October	25	2,532	1,210	1,717	1,003	26	1,883	1,444	1,904	1,232
November	24	2,429	1,569	1,954	1,108	23	1,297	1,098	1,385	888
December	26	1,966	1,248	1,578	1,117	26	1,510	1,138	1,421	982
Totals	*304*	*34,415*	*13,257*	*17,590*	*10,782*	*302*	*21,674*	*16,915*	*21,742*	*14,055*

[1] The Boston Offices were closed June 17th.

Classification of Placements by Industries and Occupations. In Table 5 data are presented showing the number of persons called for by employers and the number of positions reported filled in 1931, classified by industries or occupations represented, and by offices.

Of the 10,782 positions reported filled by the four offices in 1932, 4,900, or 45.5 per cent, were filled by casual workers and common laborers; 1,495, or 13.9 per cent, were in domestic and personal service; and 1,155, or 10.7 per cent, were in building and construction work. The metal and machinery trades, clerical occupations and wholesale and retail trade were also well represented. Special efforts have been made to increase the

service rendered to persons seeking employment in stores and offices, and 954 positions of this nature were filled by the four offices in 1932. The mercantile office in Boston, established in January, 1922, primarily for the placement of applicants for such employment, filled 638 of these positions.

Table 5. — Number of Positions Reported Filled in 1932 and 1931: By Industries and Offices

Occupations Industries and	Number of Positions Reported Filled									
	1932					*1931*				
	Boston, Main Office	Boston, Mercantile Office[1]	Springfield Office	Worcester Office	Total Four Offices	Boston, Main Office	Boston, Mercantile Office[1]	Springfield Office	Worcester Office	Total Four Offices
Agriculture	11	–	137	108	256	37	–	170	117	324
Building and construction	806	–	246	103	1,155	1,135	–	252	194	1,581
Casual workers	678	–	1,897	1,182	3,757	1,223	–	2,623	1,819	5,665
Chemicals, oils, paints, etc.	7	–	–	–	7	5	–	–	–	5
Clay, glass and stone products	6	–	–	–	6	–	–	–	–	–
Clerical, professional, and technical	—[1]	425	143	15	583	—[1]	508	53	25	586
Clothing and textiles	76	–	2	15	93	165	–	8	44	217
Common labor (not casual workers)	624	–	410	109	1,143	206	–	56	31	293
Domestic and personal service	631	–	371	493	1,495	1,061	–	431	540	2,032
Food, beverages, and tobacco	67	–	8	2	77	76	–	16	6	98
Leather, rubber, and allied products	64	–	1	–	65	138	–	3	3	144
Lumber	–	–	5	12	17	–	–	46	12	58
Metals and machinery	281	–	86	34	401	456	–	148	77	681
Musical instruments	–	–	1	–	1	–	–	–	–	–
Paper and printing	243	–	8	2	253	291	–	21	6	318
Shipbuilding	215	–	1	–	216	297	–	1	–	298
Theatres and amusements	2	–	1	1	4	18	–	3	8	29
Transportation and public utilities	44	–	95	18	157	52	–	33	22	107
Wholesale and retail trade	20[1]	213	94	44	371	30[1]	255	92	62	439
Woodworking and furniture	30	–	12	4	46	23	–	27	9	59
Miscellaneous	568	–	86	25	679	936	–	109	76	1,121
Totals	*4,373*	*638*	*3,604*	*2,167*	*10,732*	*6,149*	*763*	*4,092*	*3,061*	*14,056*

[1] In Boston, all applicants for clerical, professional and technical positions and for positions in wholesale and retail trade (except manual workers) who apply at the main office, are referred to the mercantile office

Placement of Veterans. At each of the four state offices records relative to the placement of veterans are kept separately. A summary of these records for the years 1932 and 1931, by offices, appears in Table 6.

The total number of veterans registered at the four offices during the year 1932, was 3,565, as compared with 1,020 registered in 1931. This very large increase in the number of registrations of veterans was the result of the preference extended to them in employment on public works and the enlarged public highway program. Through its inspectors and representatives of the public employment offices, the Department made determined efforts to secure compliance on the part of contractors with the provisions of law relative to preference to veterans in employment on public works.

The total number of positions reported filled by veterans in 1932 was 1,352, which exceeded by 140, or 10.4 per cent, the number (1,212) of positions reported filled by veterans in 1931. Of the 7,380 positions reported filled by males during the year 1932, by the four offices combined, 1,352, or 18.3 per cent, were filled by veterans.

Table 6.—Number of Veterans Registered, Number Referred to Positions, and Number of Positions Reported Filled by Veterans, 1932 and 1931: By Offices

Offices	1932			1931		
	Registrations[1]	Referred to Positions	Positions Reported Filled[2]	Registrations[1]	Referred to Postions	Positions Reported Filled[2]
Boston — main office	2,114	949	497	436	839	536
Boston — mercantile office	486	32	20	112	11	9
Springfield	642	765	725	351	624	530
Worcester	323	163	110	121	154	137
Totals	*3,565*	*1,909*	*1,352*	*1,020*	*1,628*	*1,212*

[1]Applicants for positions are registered but once each year, regardless of the number of times they apply for positions during the year.

[2] Includes duplications of individuals who were referred to more than one position or placed in more than one position during the year.

5. Cooperation with the United States Employment Service

The Department continued to cooperate with the United States employment service during the past year. In accordance with the cooperative agreement the State offices furnish monthly reports to the federal service and conform to certain regulations with reference to their operation. The federal service supplies certain standard forms for the use of the State offices and appoints the Director of the State Offices and the Superintendent of each office as special agents of the federal service, at a nominal salary of one dollar a year, and grants the use of the franking privilege in connection with the placement work of the four State offices. There is some saving to the department as a result of the use of these supplies and of the franking privilege.

Prior to the reorganization of the United States Employment Service late in 1932, the federal service provided for the payment of the salaries of two employees, one of whom was examiner-in-charge of the State mercantile employment office in Boston and the other was superintendent of the federal-municipal office in Westfield. Under the new arrangement these two federal employees ceased to be directly associated with the State service, and several of the federal employees who had been granted desk room at the State mercantile employment office in Boston were transferred to the new federal office which was opened toward the close of the year.

Since the reorganization of the federal service, the federal and state offices in Massachusetts have been mutually helpful, and have cooperated wherever possible. While actual clearance of positions offered by employers has necessarily been restricted because of unfavorable conditions, information as to such positions has been regularly exchanged between the offices.

APPENDIX

Table A.—Number of Positions Reported Filled by the State Public Employment Offices: By Years, 1907-1932

Years	Number of Positions Reported Filled					
	Boston[1] Main Office	Springfield[2]	Fall River[3]	Worcester[4]	Boston Mercantile Office[5]	Total All Offices
Fiscal year ending November 30:						
1907	14,480[1]	796[2]	234[3]	–	–	15,510[6]
1908	9,941	2,431	2,583	–	–	14,955
1909	13,034	3,166	1,541	–	–	17,741
1910	15,478	3,675	1,421	–	–	20,574
1911	15,806	4,310	1,042	–	–	21,158
1912	19,554	5,392	1,641	–	–	26,587
1913	20,971	6,325	1,269	552[4]	–	29,117[7]
1914	15,724	4,685	1,125	3,176	–	24,710[8]
1915	14,491	6,106	942	5,150	–	26,689[8]
1916	19,120	10,999	1,348	8,398	–	39,865[8]
13 months ending December 1, 1917	18,747[9]	12,344[9]	383[9]	9,681[9]	–	41,155[9]
Calendar year:						
1918	18,125	12,576	–	9,034	–	39,735
1919	16,885	12,287	–	8,443	–	37,615
1920	16,910	12,044	–	8,566	–	37,520
1921	11,734	9,689	–	7,133	–	28,556
1922	13,244	13,968	–	9,849	1,408[5]	38,469
1923	14,882	13,677	–	9,703	1,782	40,044
1924	13,037	10,306	–	7,316	1,529	32,188
1925	14,200	11,068	–	8,000	1,538	34,806
1926	14,933	10,252	–	7,615	1,494	34,294
1927	13,721	8,168	–	5,866	1,103	28,858
1928	13,052	8,185	–	5,431	1,656	28,324
1929	13,558	9,071	–	6,290	1,238	30,154
1930	8,760	5,753	–	4,119	798	19,430
1931	6,149	4,092	–	3,051	763	14,055
1932	4,373	3,604	–	2,167	638	10,782

[1] Boston (main office) opened December 3, 1906.
[2] Springfield office opened September 4, 1907.
[3] Fall River office opened October 1, 1907; discontinued March 31, 1917.
[4] Worcester office opened September 15, 1913.
[5] Boston (mercantile office) opened January 9, 1922.
[6] Twelve months for the Boston office, three months for the Springfield office, and two months for the Fall River office.
[7] Eleven months for the Fall River office (closed during August) and two and one-half months for the Worcester office, opened September 15, 1913.
[8] Eleven months for the Fall River office (closed during August).
[9] Thirteen months for all offices except the Fall River office which was open four months only, having been discontinued March 31, 1917.

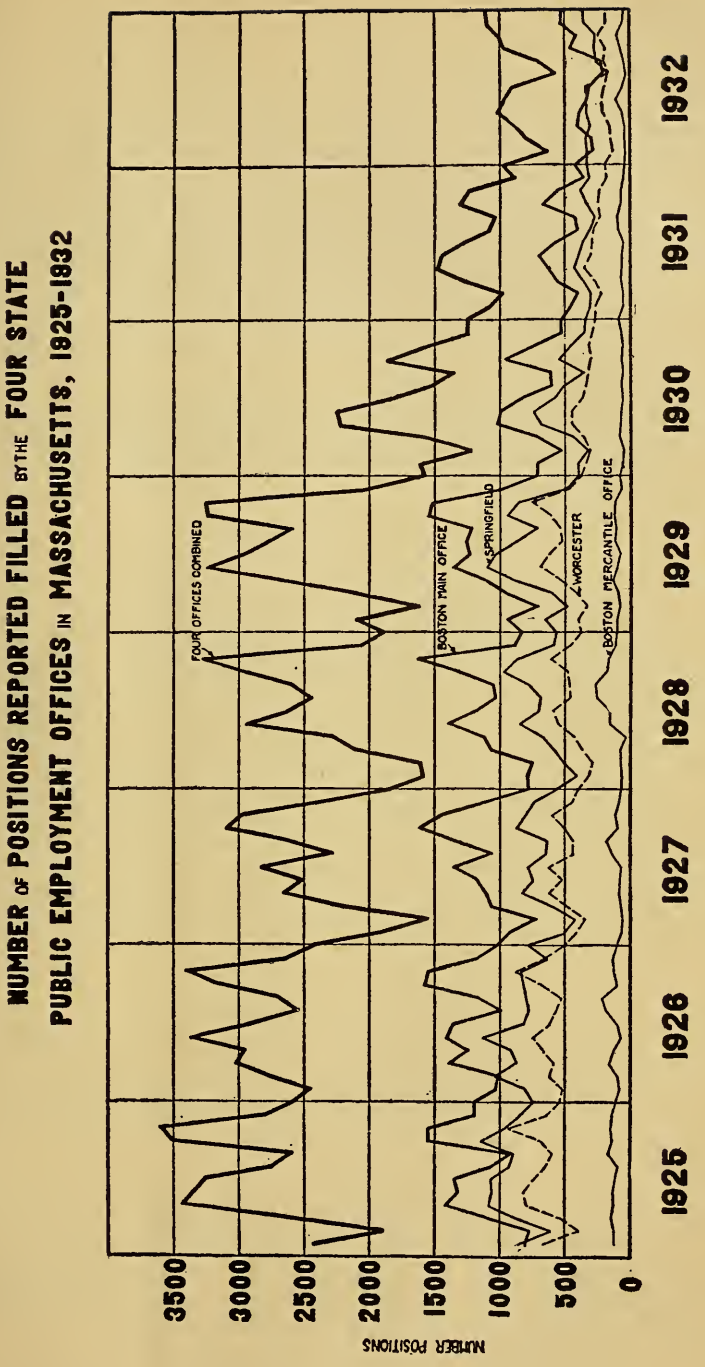
*Table B.—Number of Positions Reported Filled by the Four State Public Employment Offices: By Months, 1925 - 1932**

Months	1925	1926	1927	1928	1929	1930	1931	1932
	All Four Offices Combined.							
January	2,443	2,451	1,914	1,578	2,095	1,511	1,083	679
February	1,898	2,762	1,552	1,605	1,620	1,210	978	815
March	2,601	3,020	2,225	2,105	2,091	1,580	1,261	895
April	3,430	2,963	2,646	2,262	2,671	2,224	1,482	1,019
May	3,335	3,366	2,522	2,943	3,237	2,254	1,453	977
June	3,263	2,901	2,833	2,624	2,969	1,850	1,279	911
July	2,745	2,541	2,299	2,446	2,780	1,526	1,082	566
August	2,590	2,691	2,615	2,586	2,593	1,354	1,032	721
September	3,510	3,175	3,089	2,947	3,239	1,859	1,303	971
October	3,598	3,395	2,974	3,279	3,256	1,573	1,232	1,003
November	2,809	2,630	2,366	2,064	2,031	1,250	888	1,108
December	2,584	2,399	1,823	1,885	1,575	1,239	982	1,117
Totals	*34,806*	*34,294*	*28,358*	*28,324*	*30,157*	*19,430*	*14,055*	*10,782*

Table B. — Continued

Months	1925	1926	1927	1928	1929	1930	1931	1932
				Boston — (Main Office).				
January	802	1,035	930	789	934	712	459	282
February	767	1,014	720	745	717	527	401	291
March	1,066	1,389	1,067	1,071	965	710	562	403
April	1,417	1,247	1,108	1,122	1,113	1,020	633	395
May	1,322	1,408	1,176	1,390	1,348	993	697	324
June	1,348	1,356	1,352	1,180	1,231	833	570	319
July	1,073	995	1,062	1,032	1,257	611	402	197
August	923	1,153	1,347	1,062	1,222	612	436	224
September	1,548	1,575	1,617	1,315	1,549	948	668	461
October	1,549	1,551	1,456	1,622	1,519	736	548	411
November	1,191	1,191	1,101	893	991	527	352	537
December	1,194	1,019	785	831	712	531	421	529
Totals	*14,200*	*14,933*	*13,721*	*13,052*	*13,558*	*8,760*	*6,149*	*4,373*
				Boston — (Mercantile Office).				
January	119	84	63	60	104	61	49	35
February	121	94	60	68	78	51	52	40
March	141	158	73	74	100	78	72	36
April	125	127	82	36	134	68	67	56
May	132	76	74	154	104	72	60	105
June	113	98	71	156	80	60	52	53
July	93	186	142	262	124	68	92	22
August	165	215	181	272	111	57	95	46
September	135	103	96	182	125	67	67	61
October	151	123	110	172	121	56	66	94
November	136	129	79	117	73	67	49	47
December	107	101	72	103	84	93	42	43
Totals	*1,538*	*1,494*	*1,103*	*1,656*	*1,238*	*798*	*763*	*638*
				Springfield Office.				
January	857	811	506	412	653	398	311	236
February	609	1,038	426	502	490	324	303	338
March	870	879	602	587	611	445	361	306
April	1,085	920	830	672	894	684	431	366
May	1,060	1,129	747	842	1,100	738	396	335
June	1,067	821	782	698	1,036	586	365	343
July	929	784	646	687	874	509	305	176
August	900	798	644	784	723	361	272	253
September	1,143	816	874	968	943	544	328	270
October	961	842	806	876	857	463	383	261
November	841	637	739	590	490	355	310	352
December	746	777	566	567	400	346	327	368
Totals	*11,068*	*10,252*	*8,168*	*8,185*	*9,071*	*5,753*	*4,092*	*3,604*
				Worcester Office.				
January	665	521	415	317	404	340	264	126
February	401	616	346	290	335	308	222	146
March	524	594	483	373	415	347	266	150
April	803	669	626	432	530	452	351	202
May	821	753	525	557	685	451	300	213
June	735	626	628	590	622	371	292	196
July	650	576	449	465	525	338	283	171
August	602	525	443	468	537	324	229	198
September	684	681	502	482	622	300	240	179
October	937	879	602	609	759	318	235	237
November	641	673	447	464	477	301	177	172
December	537	502	400	384	379	269	192	177
Totals	*8,000*	*7,615*	*5,866*	*5,431*	*6,290*	*4,119*	*3,051*	*2,167*

* These data are represented graphically on the chart on page 153.


NUMBER OF POSITIONS REPORTED FILLED BY THE FOUR STATE PUBLIC EMPLOYMENT OFFICES IN MASSACHUSETTS, 1925-1932
NUMBER POSITIONS
3500
3000
2500
2000
1500
1000
500
0
1925
1926
1927
1928
1929
1930
1931
1932
FOUR OFFICES COMBINED
BOSTON MAIN OFFICE
SPRINGFIELD
WORCESTER
BOSTON MERCANTILE OFFICE

REPORT OF THE MASSACHUSETTS INDUSTRIAL AND DEVELOPMENT COMMISSION

M. Joseph McCartin, *Assistant Secretary*

The third annual report of the Massachusetts industrial and development commission for the year ending November 30, 1932, is herewith submitted.

On December 2, 1931, Commissioner of Labor and Industries Edwin S. Smith succeeded General E. Leroy Sweetser as a member ex-officio of the commission, and on September 21, 1932, Max Shoolman succeeded Louis E. Kirstein as a member. His term will expire in 1937.

On May 14, 1932 Leon M. Lamb, executive seretary of the commission resigned and as his successor was not appointed until December 23, 1932, the assistant secretary served in that capacity from May 14, through the balance of the year.

The provisions of chapter 357 of the acts of 1929 under which the commission was created, require twelve regular monthly meetings. This year regular monthly meetings required by statute were held each month except August, and in addition seven special meetings have been held as the occasion demanded.

Bills Filed

In December 1931, the commission filed two bills; H-460, an act to provide for the dissemination of information respecting the industrial, agricultural and recreational interests of the commonwealth, and H-461, an act changing the name of the Massachusetts industrial commission to the Massachusetts development commission. House 460 was referred to the committee on ways and means, which reported that the same ought to pass with an amendment substituting therefor a bill H-1353 which became a law on August 1, 1932, (chapter 187 of the acts of 1932). By this act the commission is permitted, on behalf of the commonwealth, to accept contributions and, subject to the approval of the governor and council, may expend the same for the purpose of the act and for the dissemination, by any appropriate means or mediums, of information respecting the industrial, agricultural and recreational interests of the commonwealth. House 461 was presented at the same time and was amended in the house changing the name to the Massachusetts industrial and development commission and became effective on June 18, 1932, (chapter 99 of the acts of 1932).

Duties of the Commission

The duties of the commission, as defined by section 9-C of chapter twenty-three of the General Laws are to conduct researches into industrial and agricultural conditions within the commonwealth, and to seek to coordinate the activities of unofficial bodies organized for the promotion of the industrial, agricultural and recreational interests in the commonwealth.

For convenience, the accomplishments of this commission during the fiscal year 1932 are outlined in the same general order as they are authorized by the act already referred to. The researches which have been conducted will be briefly described, then those efforts which were made to coordinate the activities of unofficial bodies in the commonwealth will be outlined, and finally the printed matter distributed by this commission in fulfillment of its objectives will be commented upon.

Survey of Mineral Resources

Inquiries have been received from time to time in regard to the existence of certain metallic and non-metallic minerals in Massachusetts. The

commission engaged a competent and experienced geologist to survey and report upon the mineral resources of the state. This report was the first comprehensive survey of its kind that had been made by the state since 1841. The demand for the report indicates that it fills a long-felt want, and it will undoubtedly prove of greater value as time goes on. Copies of this survey were submitted to a number of geologists with requests for new material that might be added to keep the report up to date. This request has met with the cooperation of many geologists who feel that the report is a valuable contribution to the literature on the geology of Massachusetts. Copies have been deposited in libraries throughout the country and have been placed in the hands of industrial men who could make use of the mineral products of the commonwealth. The number of inquiries which have resulted appear to indicate that this survey will do much to stimulate the mineral production of the state.

Digest of Labor Laws

The many questions which have come up in regard to the standards of labor legislation governing the employment of women and children in this state as compared with other industrial states resulted in the undertaking by the commission of a comparative study of labor legislation in effect in the industrial states of the northeast and the new industrial states of the south. This digest of labor laws, which has been in great demand since its publication, clearly and concisely compares the restrictions on labor in these important industrial states.

"A Brief Study of Industrial Massachusetts"

Recognizing the general tendency during the past few years of industry to locate in other and newer sections of the country, to the detriment of Massachusetts, the commission set about to ascertain the causes of these changes in our industrial structure. A well-known industrial research firm was engaged to make a brief study of the conditions affecting industry in this state. Although the funds available did not permit an exhaustive survey, the report which was made, entitled "A Brief Study of Industrial Massachusetts" brought out several important factors that the investigators felt were detrimental to the industrial welfare of the state, even in normal times. Practically all of those who read this report in a disinterested manner stated that they believed this report was an important contribution to the future industrial policy of Massachusetts. A limited edition of one thousand copies was printed and distributed judiciously to labor leaders and men prominent in industry and finance. Comments were solicited and judging by the number of replies received from these business leaders, this study stimulated keen interest in the difficulties facing industry doing business in this state. The report was referred to the New England Council with the request that a conference be called to discuss the recommendations contained in the study. Mr. John S. Lawrence, chairman of the Massachusetts division of the New England Council discussed the report at a conference of the several taxpayers' associations in this state which was held in Worcester in September 1932.

Economic Survey of Cape Cod

The construction of the state pier at the Cape Cod Canal, which was authorized by the general court in 1931 has caused considerable interest to be aroused as to just how it will affect the prosperity of that section of the state. In order to determine the facts regarding the most advantageous uses to which this pier can be put, this commission is now making a survey of all phases of this matter, in cooperation with the Bureau of Business Research of Boston University. In this way the taxpayers of that section of the state will know what may be expected from the new

pier in the economical movement of agricultural products, the possibility of the opening up of that part of the state as an industrial region, and the even greater popularity which this section will have among vacationists from New York, the west and the south with the establishment of direct water transportation with New York.

Tentative Outline of a Survey
of the
Industrial Possibilities of the Cape Cod Area

A. General Background
 1. Population characteristics
 2. Natural resources
 3. Wealth and income of Cape Cod residents
 4. Climatic conditions
 5. Government—facts to show the prospective manufacturer that the communities are well run and therefore the danger of excessive tax burden is small.
 6. Cape Cod as a place to live
 a. Educational facilities

B. Present Industrial Development of Cape Cod
 1. The agricultural industry of Cape Cod
 2. The fishing industry
 a. Number employed
 b. The decline of the fishing industry
 c. Possibilities of absorbing some of the workers in other industries
 d. Conditions aiding the expansion of Cape Cod fishing industry
 e. Possibilities of expansion of market for Cape Cod fishing industry
 3. The recreation industry
 4. The laundry industry
 5. Other service industries
 6. Other industrial pursuits
 a. For local consumption
 b. For other markets

C. Economic Factors Affecting the Growth of Industry in Cape Cod
 1. Market areas which may be served by plants located in Cape Cod
 2. Consumption and buying power within one-hundred mile radius
 3. Transportation
 a. Railroad
 b. Water
 c. Bus and truck hauls
 4. Location with respect to New England Industry
 5. Comparison of transportation cost with other New England points
 6. Power facilities and power rates
 7. Taxes
 8. Available industrial sites
 a. Consideration of the various sections of the Cape most desirable for industrial development
 b. Available industrial buildings
 c. Rent conditions
 9. Labor supply and rates
 10. Fire protection and insurance rates
 11. Banking facilities
 12. Proximity to raw materials
 a. Local supply
 b. Water borne

D. The Labor Supply
 1. Number in existing industries
 2. Available supply of labor by sex
 3. Wage conditions
 4. Seasonal variations—dull seasons in present industries, such as fishing, cranberries, recreation, etc.
 This makes it unnecessary for manufacturers to carry employees over the summer months. Ample surplus labor available for industries during winter months.
 5. Standard of living conditions
 6. Freedom from labor disputes

E. General Living and Social Conditions
 1. Residential advantages
 a. Summer
 b. Fall
 c. Winter
 2. Social life
 a. Churches
 b. Schools
 c. Recreation
 d. Attractive place to bring customers during summer and fall buying periods

F. Labor Market—Salaried Employees
 1. Prevailing salaries of clerical and office help
 2. High percentage of native-born
 3. Type and character of salaried employees available

G. The New Massachusetts State Pier and Its Effects Upon the Future Industrial Development of Cape Cod

H. General Recommendations Regarding the Industrial Development of Cape Cod
 1. What communities must do to attract industries
 2. Summary of factors conducive to industrial development
 3. Types of industries most suited to Cape Cod conditions

Analysis of Industrial Changes

The commission makes a thorough analysis of official data concerning industrial changes in Massachusetts each year due to migration, the establishment of new plants and the closing of old plants. This is necessary because much of the published statistical material concerning industry is presented without comment or analysis. By interpreting these figures in a concise manner, the commission is able to determine the gains or losses in each industry and in each community and thus formulate an intelligent plan to develop industry in the commonwealth.

The Value of Research

The researches just outlined indicate that the commission is deeply concerned with the long-range development of the industrial structure of the commonwealth to insure prosperity in the future in competition with other states, which are constantly making known their advantages.

It is true that the tangible results of these industrial researches by this commission have not as yet been fully realized. Research does not always produce immediate results, but research does lay the foundation for intelligent progress at an expense which is extremely small when compared with the severe losses which often result from apathy or disinterest.

Dr. Karl T. Compton, President of the Massachusetts Institute of Technology, in a radio address sponsored by this commission on March 5, 1932, brought out among other things the following significant points in regard to research:

"Research has now become an absolute necessity, not only to develop business but also as an insurance to protect it. Any industry embarking upon a program of research must be willing frankly to admit the possibility of very considerable delay and expenditure before the returns will be evident."

Dr. Compton further stated that in his opinion the logic of the situation and the facts of recent history are a handwriting on the wall pointing to the doom of any industry which, in these times of competition and of improvement, does not see to it that adequate and intelligent provision is made for research as one of its basic activities.

These opinions of the president of the leading engineering institution in the world regarding research as it affects industrial concerns applies with equal force to the economic structure of the state. Massachusetts is menaced by competing industrial states which have been growing at a greater rate than we have. It is through research that we must expect to determine the reasons for the more rapid growth of industry in other states, and to correct any defects that may exist in the industrial structure of this commonwealth, so that in years to come our continued prosperity will be assured.

Cooperation with Unofficial Bodies

The act of the general court which created this commission specified that in addition to research, this body "shall seek to coordinate the activities of unofficial bodies organized for the promotion of the industrial, agricultural and recreational interests in the commonwealth".

As in the case of research, the commission considered coordination among those unofficial bodies concerned with industry as most important to the prosperity and general welfare of the commonwealth.

In industry there are two great groups of organizations—those organized to promote the welfare of labor and those organized to assure the profitable utilization of capital. It is vitally essential that these two great groups act in harmony for their own prosperity and for the general good of the commonwealth.

Conferences of Labor Men and Manufacturers

The commission felt that the greatest service it could render to the people of Massachusetts was to coordinate the activities of labor and capital. It was of further opinion that this could be best accomplished by bringing together representatives of these groups at times when industrial relations were harmonious and the minds of both parties were in a receptive and cooperative mood. The commission consequently continued conferences between labor representatives and manufacturers. As a result of these meetings there were evolved plans and concrete proposals for federal legislation for the establishment of uniform hours of labor which have met with the approval of both the manufacturers and the representatives of labor attending these conferences. Robert J. Watt, a member of the commission, was invited to confer with William Green, President of the American Federation of Labor. During this conference Mr. Watt presented the bill developed by the conferences and solicited the support of the federation. It was conceded by those who attended these meetings sponsored by the commission that such action was a most constructive step to place Massachusetts manufacturers in a proper position to meet the competition of other states having less stringent laws governing the employment of women and minors.

Conferences of Fishing Industry Leaders

At the present time this commission is holding conferences to devise ways and means of improving conditions in the fishing industry of Massachusetts, which is being faced with many unfavorable economic factors.

The Massachusetts Fisheries Association, ship-owners, captains and those interested in the marketing of sea food are cooperating with the commission in this matter. As a result of these conferences committees have been appointed to study in detail methods by which foreign competition may be equalized, the consumption of fish increased by educational means, and the products of the Massachusetts fisheries branded or identified so that consumers will insist upon the local product. These conferences are still in progress, and it is believed by leaders in this industry that they will result in definite accomplishments that will be helpful to the industry.

Miscellaneous Industrial Activities

Since the commission has begun to function, it has been called upon from time to time to intercede with federal and state bureaus in the interests of Massachusetts industry. It has been found that a central agency of this nature, with the influence of the commonwealth behind it, can arouse favorable response in Washington.

In many other ways the Massachusetts industrial and development commission is furthering the interests of industry in the commonwealth. A monthly canvas of the chambers of commerce in the state is made regarding new industries and expansions of established concerns. This information is tabulated and made public through the newspapers. The commission maintains a list of persons having capital to invest in industry and another list of those interested in establishing industry in Massachusetts. A definite record of success in bringing parties together can be pointed to as a tangible result of this activity on the part of the commission. In each case studies have been made to assure that the parties brought together had mutual interests.

Out-of-state industrial prospects have been contacted personally in order that the advantages of Massachusetts could be laid before them directly. Industrial engineering firms having clients who might locate in this state were also contacted personally. Through the cooperation of the commission, local community organizations and industrial development experts of power companies have been placed in touch with prospects, with the result in some instances that engineers have been sent to study the particular needs of the industry concerned, and for the purpose of finding an advantageous location in Massachusetts. Such industries as the manufacture of dry ice, soap and woolen goods and the manufacture and assembly of automobile bodies have been included in this promotional activity. Other prospects are being followed up at the present time. In addition, friendly contacts have been maintained with firms which have moved into the state to make them feel that they were really welcome and to assist them in getting established in their new locations. Interviews have been arranged with executives of concerns planning to leave Massachusetts to determine what might be done to induce them to stay. Manufacturers who have discontinued operation in this state have been contacted to learn why they decided to cease manufacturing in Massachusetts, in order that similar situations in other cases could be avoided. The commission has furnished a table of comparative benefit costs of the workmen's compensation laws of practically all the states to chambers of commerce and numerous other interested parties.

Directory of Massachusetts Manufacturers

At the present time the commission is filling a long-felt need by preparing a "Directory of Massachusetts Manufacturers". All factors indicate that the list when published will be in great demand. In the hands of purchasing agents and others who have use for the manufactured products of the commonwealth, this directory should be of great benefit to our industries.

Recreation

A survey conducted by this commission in a previous year showed that the recreational industry in Massachusetts represents an investment of approximately $200,000,000 in taxable property. It is essential that steps be taken to develop this industry in competition with other states which are aggressively promoting their recreational advantages. Local publicity ventures are excellent, but their scope is naturally restricted. The need for coordination was recognized by the general court when it created the Massachusetts industrial and development commission. One of the duties assigned to this commission was to coordinate the activities of unofficial bodies organized for the promotion of the recreational interests in the commonwealth.

Aside from the comprehensive development measures undertaken by the commission by means of general literature, car cards, radio, publicity material, exhibits etc., in which the recreational advantages of the commonwealth have been brought to the attention of the public as one of the factors favoring Massachusetts, there have been many steps taken which were designed specifically to attract tourists and vacationists to the unsurpassed resorts of this state.

Directory of Stopping Places

During the summer of 1932 the commission prepared a revised edition of 20,000 copies of "A Directory of Stopping Places for Tourists and Vacationists". These directories were distributed to every state in the union and to many foreign countries. In every case these were sent only upon request. These directories listed in the first section hotels, tourist homes and farm boarding places, and proved to be extremely popular. They were undoubtedly of inestimable value in encouraging tourists to remain in this state for longer periods of time than they ordinarily would have. In other sections of the directory were listed boys' and girls' summer camps, golf clubs, gun clubs, skeet clubs, rifle and pistol clubs and yacht clubs. An added feature of the 1932 edition was the inclusion of a number of suggested tours, such as to the beach resorts and historical shrines of the state, the Berkshire Hills and the central Massachusetts countryside, and the educational institutions of the commonwealth. Considered as a whole, this directory was a comprehensive guide to the recreational facilities of Massachusetts in convenient form and size.

Cooperation with Other Agencies

During the 1932 season the New England Council advertised extensively the recreational advantages of this region. In every case in which those who inquired for further information showed any interest in Massachusetts, the New England Council forwarded the request to this commission for further action. Specific requests for information were given special consideration, even when the matter entailed research and inquiry. Those who requested general vacation information were furnished with a carefully chosen selection of literature concerning the various sections of the commonwealth. This literature was prepared and printed by local unofficial bodies and distributed by the commission.

The commission was successful in inducing the New England Telephone and Telegraph Company to spend approximately $500.00 during the summer of 1932, in advertising the "Directory of Stopping Places". Many telephone requests for this and other vacation literature were received during the time that the advertisements were run in the newspapers.

Stories and pictures pertaining to Massachusetts were furnished to magazines, newspapers, the California department of visual education, official bodies of other states and the publishers of school textbooks upon request. A large gasoline company submitted its proposed 1933 touring guide to this commission for revision, which was done with the aid of the official historical data available to the commission.

General Publicity Measures

Many general publicity measures have been undertaken by this commission to stimulate Massachusetts industry, agriculture and recreation impartially. Some of these have been accomplished with little or no expense to the taxpayers of the commonwealth. These activities, which will be discussed in greater detail later, include the publication and distribution of booklets, the presentation of several series of radio programs, the display of car cards in the coaches of two large New England railroads, the release to the newspapers of timely information pertinent to Massachusetts, the design and display of exhibits at the Brockton Fair, the Eastern States Exposition, the conferences of the New England Council and other such events, also the arrangements for disseminating information regarding the commonwealth to organized groups by means of speakers and stereopticon lantern slides supplied by this commission.

Car Advertising Signs

Through the cooperation of the firm which has charge of the car card advertising in the New England railroads, it was possible for the commission to place, at no expense for space rental, one thousand car cards advertising the advantages of Massachusetts as an ideal location for industry, agriculture and recreation in the cars of the Boston and Maine and New Haven Railroads.

Radio Broadcasts

The commission secured the cooperation of stations WBZ, WBZA and WNAC to use their facilities for the presentation of several series of radio broadcasts. These fifteen-minute and half-hour programs in total amounted to many hours of radio time and judging by the letters received after each broadcast, this means of publicity has been very successful.

Three series of radio programs were arranged and put on the air by the commission during 1932. One of these consisted of fourteen weekly programs dealing with the industrial advantages of the commonwealth. Such subjects as railroad facilities, water transportation resources, the value of research to industry and the mineral resources of Massachusetts were discussed by men well informed in their respective fields.

Another series of twenty weekly programs was broadcast which took the form of interviews with the president or secretary of the chambers of commerce of the principal industrial cities of the commonwealth, in which the advantages of each city as a location for industrial plants were brought out. In practically all of these programs music was furnished by local orchestras or singers who donated their services as contributions to the development of their respective communities.

The third and final series of five programs was presented during the latter part of the summer and was devoted to the recreational advantages of several sections of the state. These half-hour programs consisted of playlets or musical selections by local groups, together with brief talks by prominent men in the sections publicized. Authoritative information about the total eclipse of the sun which occurred on August 31, 1932, was also given.

Many favorable comments and requests for copies of talks from widely scattered localities resulted from these radio programs. The commission mimeographed and mailed copies of these addresses to all who requested them. A complete summary of the programs included in the three series follows:

Series of Radio Programs on Industrial Advantages of Massachusetts

Date 1932	Subject and Speaker
January 23	Massachusetts' Railroad Facilities, Mr. T. F. Joyce, Assistant Vice President, Boston and Maine Railroad.
January 30	Massachusetts Agriculture Market Survey, Doctor Arthur W. Gilbert, Commissioner of Agriculture.
February 20	Massachusetts' Water Transportation Resources, Mr. Frank S. Davis, Manager, Maritime Association, Boston Chamber of Commerce.
February 27	Development in Massachusetts Fisheries, Mr. George E. Willey, President, Massachusetts Fisheries Association.
March 5	The Value of Research to Industry, Doctor Karl T. Compton, President, Massachusetts Institute of Technology.
March 12	Why Massachusetts Has Stood Up in Depression and Why She Should Lead in Business Recovery, Mr. James R. Bancroft, President, American Institute of Finance.
March 19	Progress of Aeronautics in Massachusetts, Mr. Franklin E. Jordan, Aviation Editor of the Boston Transcript.
March 26	Making Federal Statistics Pay Dividends, Mr. Hugh Butler, New England Manager, Bureau of Foreign and Domestic Commerce.
April 2	Motor Truck Facilities in Massachusetts, Mr. E. C. Benway, Assistant to the President, Motor Truck Club of Massachusetts, Inc.
April 9	Effect of Automobile Manufacture on Massachusetts Industry and Employment, Mr. James H. Phalan, Manager of the Industrial Service Department, Exchange Trust Company.
April 16	Sketch of the Mineral Resources and Geology of Massachusetts, Mr. Irving B. Crosby, Consulting Geologist, Boston, Massachusetts.
April 23	Industrial Resources of Massachusetts, Mr. Leon M. Lamb, Executive Secretary, Massachusetts Industrial Commission.
April 30	Shipbuilding Still a Thriving Industry in Massachusetts, Mr. H. E. Gould, General Manager of the Fore River Plant of the Bethlehem Shipbuilding Corporation.
May 7	Advantages of Massachusetts for the Fisherman, Mr. Raymond J. Kenney, Director, Division of Fisheries and Game, Department of Conservation.

Programs on Industrial Advantages of Certain Massachusetts Cities and Towns

Date 1931	Speaker
December 27	John A. Toomey, Manager of the Industrial Bureau of the Worcester Chamber of Commerce.
Date 1932	
January 3	James H. Walsh, Manager of the Bureau of Commercial and Industrial Affairs of the Boston Chamber of Commerce.
January 10	Major Frederick J. Hillman, Executive Vice President of the Springfield Chamber of Commerce.
January 17	Frank W. Dunham, Manager of the Fall River Chamber of Commerce.
January 24	Arthur W. Lalime, Secretary of the Industrial Department of the Lynn Chamber of Commerce.
January 31	Attorney Nathan P. Avery, former Mayor of Holyoke spoke for the Holyoke Chamber of Commerce.
February 7	Chester M. Runels, Secretary of the Lowell Chamber of Commerce.

February	14	Harding U. Greene, President of the Cambridge Industrial Association.
February	21	Edward B. Walker, Secretary of the Fitchburg Chamber of Commerce.
February	28	William T. Barbre, Secretary of the Pittsfield Chamber of Commerce.
March	6	Earl J. Arnold, Secretary of the Waltham Chamber of Commerce.
March	13	William Ritchie, President of the New Bedford Board of Commerce.
March	20	Samuel E. Eisenberg, Chairman of the Industrial Committee of the Chelsea Chamber of Commerce.
March	27	F. H. Pierce, President of the Beverly Chamber of Commerce.
April	3	David A. Cutler, President of the Quincy Chamber of Commerce.
April	10	Percy N. Hall, Secretary of the Westfield Chamber of Commerce.
April	17	Lewis W. Newell, Secretary of the Salem Chamber of Commerce.
April	24	Wallace F. Hubley, President of the Haverhill Chamber of Commerce.
May	1	Valmore O. Cote of the Executive Board of the North Adams Chamber of Commerce.
May	8	Carl Dodds, Secretary of the Framingham Chamber of Commerce.

Programs on the Recreational Advantages of Massachusetts

Date 1932		
August	7	Presented by: Beverly Chamber of Commerce. Guest speaker—Henry Cabot Lodge, Jr., Vice-President of the Beverly Chamber of Commerce, and grandson of our late Senator, introduced by Mr. Bradbury F. Cushing, Chairman of the Commission. Entertainment furnished by members of the Oceanside Theatre at Magnolia.
August	14	Presented by: Provincetown Board of Trade. Guest speaker—Mr. Frank Barnett, Chairman of the Board of Selectmen, who outlined the attractions of the tip of the Cape. Speaker introduced by Mr. Cushing. Colonel Carroll Swan delivered a short talk concerning the eclipse of the sun on August 31, which was prepared by Professor Dunham of Harvard. Entertainment in form of a playlet given by Wharf Players, written especially for this program by Mr. Donald Blackwell, noted playwright.
August	21	Presented by: Scituate Historical Society. Guest speaker —Colonel Charles Wellington Furlong, introduced by Mr. M. J. McCartin, Assistant Secretary of the Commission, who described one of Massachusetts' most attractive vacation spots. Entertainment furnished by Mrs. Sarah Holway George, soprano soloist, accompanied by Mrs. Cora Gooch Brooks at the piano.
August	28	Presented by: Cape Cod Chamber of Commerce. Speaker —Harry S. Dowden, Secretary of the Chamber, "The Vacation Land of Cape Cod" introduced by Mr. M. J. McCartin. Music furnished by Roy Lamson and his Harvardians. Skit entitled "The Women's Club Sees the Eclipse" presented by the Theatre Unit of West Falmouth.

September 4 Presented by: Gloucester Chamber of Commerce. Guest speaker—Hon. John Hays Hammond, famous mining engineer, described "Cape Ann, The Garden Spot of the Atlantic" introduced by Mr. Cushing. Vocal selections by Mrs. Tina Whittey Hanson; Robert Churchill, tenor soloist; orchestral selections by Isle o' Dreams Orchestra of Gloucester.

Stereopticon Slides

A file of stereopticon slides portraying the principal industrial plants, agricultural enterprises, historical sites and natural beauty spots of Massachusetts is kept by the commission for use by this and other organizations at conventions, fairs, expositions and other places where the opportunity presents itself to use this form of publicity advantageously. This collection is constantly being enlarged and kept up to date. The commission has sent out speakers to organized groups to talk on the advantages of Massachusetts and is at present prepared to do so whenever such a service is desired. An automatic projection machine is now owned by the commission which has been used at the Brockton Fair, the Eastern States Exposition and the annual conference of the New England Council. Arrangements have been made to have this machine, loaded with slides concerning Massachusetts, set up and placed in operation at strategic locations throughout the country.

Exhibits

Exhibits have been designed and set up in the new state building at the Brockton Fair, the Industrial Arts Building at the Eastern States Exposition and at the New England Council conference. These exhibits portrayed the advantages of Massachusetts in industry, agriculture and recreation by means of posters, models and the automatic projection machine already referred to. An attendant was on duty at each of these exhibits to answer questions asked by interested parties.

Contacts with the Press

Throughout the course of its existence, the Massachusetts industrial and development commission has maintained close and friendly contact with the press. News stories and feature articles have been supplied to newspapers and periodicals. The cooperation which has been accorded by these publications and the large amount of space which has been given to material originating with the commission is proof that the information so released has been timely and interesting. Much favorable comment has been received. In all cases the interests of Massachusetts have been placed uppermost.

During the year the commission recorded newspaper and magazine publicity to the extent of 3,755 column inches. This is the equivalent of nearly 180 standard sized newspaper columns. Undoubtedly there was much more printed concerning the commission of which this body has no definite record. This publicity consisted of news material, editorial comment, magazine articles, feature stories and advertisements inserted through the cooperation of the telephone company.

Conclusion

The foregoing brief summary of the activities of the Massachusetts industrial and development commission shows that there is a real need for an official promotional body of this nature and that the unique duties of this commission do not overlap those of other state agencies.

During the year 1932, the full possibilities of this commission could not be realized because of the small appropriation provided. A request was made for an appropriation of $24,550, but this was reduced to $18,-

100, of which $14,500 was for personal service and $3,600 for all other services and expenses.

Much of the work of the commission has of necessity been confined to those things which could be done without expense to the taxpayers of the commonwealth. Many organizations and individuals have cooperated to further the activities of the commission and thus assist in developing the resources of the commonwealth. The commission at this time wishes to thank publicly these willing cooperators whose generosity and enthusiasm have made it possible for this body to accomplish as much as it has with a minimum appropriation.

The general court of 1932 enacted legislation which permitted the commission to accept contributions from interested parties for carrying on a promotional program, but the fact that this did not become a law until August prevented any effective activity along this line during the fiscal year. The revision of the law is a step in the right direction, and under normal conditions of business many individuals and firms would be glad to cooperate financially with the commission in furthering the interests of Massachusetts.

Only by modern methods of publicity and advertising can any state expect to attract new business. Massachusetts has certain economic advantages which are superior to those of many other states. Unless these advantages are brought to the attention of industrial leaders, agriculturists and tourists, this state cannot hope to secure its share of available business. The fact that new capital flows into those regions which aggressively and systematically seek to publicize their advantages can hardly be considered a coincidence. New capital results in additional opportunities for employment and economic well-being. With broader powers and sufficient funds this commission would be in a better position to make known the advantages of Massachusetts and fulfill to the maximum degree its duty of promoting and developing the industrial, agricultural and recreational resources of the commonwealth.

REPORT OF THE DIVISION ON THE NECESSARIES OF LIFE

RALPH W. ROBART, *Director*

INTRODUCTORY

During the past year, the division has been confronted with more complicated and aggravating problems than in any prior year of its existence. General conditions have increased the necessity for a continuance of this service rendered by the commonwealth. The marked price reductions during the past year have proved to be just as disturbing as are speculative activities during a period of rising prices.

The duties of the division are specified in the following sections of Chapter 410 of the Acts of 1930:

> SECTION 9E. The division shall study and investigate the circumstances affecting the prices of fuel, gasoline and refined petroleum products and other commodities which are necessaries of life. It may inquire into all matters relating to the production, transportation, distribution and sale of the said commodities, and into all facts and circumstances relating to the cost of production, wholesale and retail prices and the method pursued in the conduct of the business of any persons, firms or corporations engaged in the production, transportation, or sale of the said commodities, or of any business which relates to or affects the same. It shall also study and investigate the circumstances affecting the charges for rent of property used for living quarters, and in such investigation may inquire into all matters relating to charges for rent.
>
> SECTION 9F. The division shall have authority to give hearings, to administer oaths, to require the attendance and testimony of witnesses and the production of books and documents and other papers, and to employ counsel. Witness summonses may be issued by the director or by any assistant by him designated and shall be served in the same manner as summonses for witnesses in criminal cases issued on behalf of the commonwealth, and all provisions of law relative to summonses issued in such cases shall apply to summonses issued hereunder, so far as they are applicable. Any justice of the supreme judicial court or of the superior court may, upon application of the director, compel the attendance of witnesses and the giving of testimony before the division in the same manner and to the same extent as before said courts.
>
> SECTION 9G. The division shall investigate all complaints made to it, and may publish its findings. It shall keep in touch with the work of federal and municipal and other agencies dealing with the necessaries of life, and give them such assistance as it deems advisable; and may invoke the aid of said agencies and of civic and other organizations.

The duties prescribed in the above sections have been performed with a view to bringing about a spirit of co-operation and the application of common sense in business relations. With reduced prices have come reduced wages and unemployment. If all business in the Commonwealth were on a cash-and-carry basis, no serious problem would result from falling prices and reduced incomes, but the fact remains that many citizens have mortgaged their futures by accepting credit on the assumption that nothing would happen to prevent their meeting the obligations they had assumed.

We have not been entirely devoid of speculation if applied in broad terms, but the speculator has found himself seriously affected by de-

flation and has little profit, if any, to show for his past activities. Most merchants have shown cordial co-operation during the past year. The following summarizes the activities of the division and the problems which still remain to be solved.

While the law does not specifically require the Division officials to hear and adjust the economic problems of every individual who enters a complaint, yet Section 9G has been interpreted in its broadest sense, and rather than turn away anyone who may appeal for assistance, every complaint has been investigated and usually a satisfactory settlement has been effected.

The commodity cost index for Massachusetts which is prepared monthly, has been accepted as authoritative and in many of the cities and towns in the State has been used in studying their economic problems. Many libraries throughout the country have expressed the desire to be continued on the mailing list for the index in order that this information may be available for reference purposes. The weightings by which the elements of the budget are apportioned have been adopted in most of the States.

The only resentment encountered in our quest for information has been due to a misunderstanding on the part of the recipient of our questionnaires or an arbitrary indisposition in some cases to furnish the information requested. Usually, it has been possible to convince the person or firm engaged in the distribution of commodities comprising the "necessaries of life" that the inquiry would provide information advantageous to their business, and would also enlighten the public as to the actual trend of prices when accurately and officially determined.

The division is a fact-finding agency of government; not a price-fixing agency. Prices are fixed by the consumer, unless competition is eliminated through conspiracy or monopoly on the part of the producer or distributor. Certain of the necessary commodities are produced by corporations which are virtually monopolies, but, nevertheless, the commodity price scales are materially lower in Massachusetts than in most of the other States which are far removed from the sources of supply.

A brief summary of the varied activities of the division is here presented. While the division does not presume to offer a cure for all the economic ills in the Commonwealth, yet it has endeavored to ascertain the facts and to suggest corrective measures for the relief of consumers who appear to have been charged unreasonable prices for commodities purchased by them.

Rent and Housing

The present status of real estate used for residential purposes can best be described by briefly reviewing the changes in the real estate market which have occurred since 1919, when there was a shortage of housing accommodations. Many owners of property for rental had waiting lists of prospective tenants. Rent increases were universal; wages were on the increase, and people, in most instances, could afford to pay the rental charges demanded.

The necessity of providing additional housing facilities caused many citizens to purchase land and to have homes built for their occupancy. Most of the new construction, however, was done by the so-called "speculative builder", who, as a rule, financed the projects by the use of borrowed funds. The success of such a building program is usually determined by the ability of the builder to convince the banks or loan agencies that he is about to provide a commodity in demand and, by padding the estimated cost sheet, he was generally able to procure sufficient money to carry out his program with little or no investment of his own money.

Conditions at the time may have justified the activities of speculative

builders. Our criticism is principally of agencies which lacked either an intelligent appraisal system or were unduly impressed by the bonuses and commissions that accrued because of the willingness of the speculator to pay. As fast as these buildings were constructed, they were resold to investment buyers, who purchased them at prices capitalized on the basis of the probable income from the property. Buying was so prevalent that many multiple dwellings were sold and resold several times and each time a piece of property was sold, a proposal to raise rents was presented to the tenants, which proposal was often so drastic that the division, in co-operation with the newspapers, deemed it advisable to conduct a publicity campaign to stop such practices.

With high wages came the natural desire on the part of many people to increase their standards of living. This was accomplished by the purchase of homes or by rental of apartments in new houses with modern accommodations and conveniences. Many others moved to heated apartments, and there were many changes of residence in each community.

Many home-owners give little thought to their financial responsibilities as such, other than that they have invested a portion of their savings in what is termed "equity" and they do not fully realize that in addition to their original investment, they have definite fixed expenses, such as interest on mortgage, taxes, water rates and repairs. Tenants give little thought to the reason why they must pay the amount of rental charged, but are merely aware that after shopping around, they selected the best accommodations they could find for the money. In times of prosperity, there appeared to be no special reason why either the landlord or tenant should have been seriously concerned with questions of economy, but conditions were such during the past year as to call for more serious consideration of the cost of home ownership and charges for rental. The co-operation of all parties interested became necessary and, as in any business, a careful inventory was requisite to a full understanding of the problems involved. Fully 60% of the wealth in the United States consists of real estate. The number of owners of equities in dwellings would be greatly reduced did wage-earners not invest their savings in such property. When a wage-earner makes deposits in savings banks, the money is usually loaned up to the legal limit on mortgages on real estate, which ordinarily are sound forms of investments justifying such loans, when the appraisal of the value of the property is intelligently and honestly made.

Irrespective of the titular ownership, real estate is actually owned by the great number of people who have deposited their money in banks. It is therefore extremely desirable that the ownership be made secure and that the depositors' savings be safeguarded, and accordingly a plan is proposed in which the banks, the home-owners and tenants must co-operate. Each of these three interested parties are considered separately in the order named.

Banks

In the last annual report of the division, it was stated that many banks were attempting to manage foreclosed real estate and refused in many instances to sell it to prospective purchasers at a price which would constitute a sound investment. It was suggested that these properties be put into the hands of recognized real estate brokers in each community and that a definite selling price be established. Many banks did not follow this suggestion until too late and consequently are now holding property that cannot be sold for the amount of the mortgage.

It is recommended that banks make an intelligent appraisal of the fair market value of all property on which they hold mortgages. In most instances, it will be found that the value of the property still exceeds the amount of the mortgage, but that the equity would hardly be sufficient to justify the equity-holder in carrying the burden of lower

rentals and increased operating charges, thus rendering it hardly probable that he would be able to reduce the principal within the near future.

Under the circumstances it appears that a sound policy for banks to adopt would be to reduce interest rates commensurate with present value; for example: if a bank loaned $6,000 on property four years ago, it may be assumed that this property was worth $10,000. If, in the meantime, rentals have been necessarily reduced, the marketable value of the property is reduced correspondingly to a point where the bank's investment is in jeopardy. The bank should immediately reduce the interest to 5% and thereby provide an incentive for the owner of the equity to hold the property. Such action would undoubtedly protect values and minimize foreclosures.

In the case of large loans on apartment property, ranging from fifty thousand to several hundred thousand dollars, there are many instances where the present income does not justify the amount of the mortgage. Banks are equally responsible with the equity holders for this condition because of their failure to properly supervise the management in order to protect the depositors' money which they have loaned.

If, after an attempted supervision of rentals and expenditures, it is the opinion of the bank that the equity holder is not financially solvent, foreclosure would then be the only solution. Refinancing of bank loans can best be accomplished by safeguarding the interests of the property owners and, insofar as the books of the bank are concerned the loan should still be carried at its full amount, notwithstanding the fact that the income on the investment at the time of foreclosure does not justify the full amount of the loan. Rather than accept an actual or book loss of depositor's money, it would be advisable, rather, to reduce interest rates and thereby enable the new owner of the property to secure a fair return on his investment. For example: a certain building erected in 1927 actually cost the original owners $500,000; the bank justifiably loaned $300,000; the estimated annual income at the time of construction was $75,000. Rentals have been reduced several times and now show an estimated income of $50,000 providing all apartments are rented. Vacancies have brought down the actual revenue to less than this amount. The bank has foreclosed. Theoretically, there is no justification for so large a loan on the present valuation; actually the depreciation in value has wiped out the equity. Up to this point, other than the fact that it is a frozen asset, the depositors' money loaned by the bank is secure and it is the opinion of this division that it should be kept secure. This could be accomplished by selective ownership and a flexible interest rate. For instance: the mortgage could be written for one year at 3%, at the end of which time, if the income is adequate, the interest rate could be increased accordingly. There are many reliable investors who would agree to such plan and the benefits would accrue to every bank depositor in the commonwealth.

In the case of co-operative banks, which are limited to small loans, many cases have been called to our attention where the action on the part of the bank officials appears to have been unreasonable. Certain foreclosures are necessary to protect the depositors, but it seems hardly just that mortgages which, originally, were for $6,000 to $8,000, and have been reduced to $2,000, should be foreclosed without a sincere effort on the part of the bank to prevent it. In some instances mortgages have been foreclosed by bankers who knew that the property could readily be sold at a price much in excess of the amount of the mortgage. Such action cannot be condoned, particularly when the original owner, at great sacrifice, has materially reduced the amount of the mortgage during a period of years. Co-operative banks can suspend payments of the principal if the circumstances of the equity holder render it necessary. Some co-operative banks have not shown proper consideration in this respect.

A suggested policy to be followed by banks in loaning money for real estate mortgages is summed up in a few words:

"Know your man."
"Know the property."
"Appraise and loan intelligently."

The Home Owner.

The owner of real estate used for residential purposes is more to be sympathized with than condemned. The great burden of economic unrest has fallen on his shoulders. Depreciated values have wiped out his life's savings. The extraordinary demands upon public welfare departments have increased the taxes and in thousands of cases, the owners have carried non-paying tenants over a long period of time.

One of the criticisms offered by this division is a constructive one for future guidance of home owners: the fact is they have failed to realize that living quarters is just as much a commodity as clothing or food. If either clothing or food were sold below the cost of production and distribution, business would not survive. This is true of the commodity known as real estate; if the rentals charged are not sufficient to pay the fixed expenses, the commodity is being rented below cost, and the final result is the loss of the property. Once the charge for rentals is reduced below the carrying charges, it is difficult to establish real estate on a profitable basis. The old economic law of supply and demand will eventually right this condition, but investors should not become the beneficiaries of the thrift of those who worked for many years to procure the money they invested.

Rents were too high for several years and not only should have been reduced, but actually have been. The difficulty lies in the fact that many have been reduced too much and some have not been reduced enough. Many owners, realizing that they have lost their equity in the property, endeavor to salvage as much as possible before the bank forecloses.

The division recently conducted an investigation of several apartment properties for the purpose of determining the amount of rentals now received in comparison with the peak years, and it was found that most of the uncertainty of multiple dwelling values is due to lack of uniformity in rental charges. Dissatisfaction on the part of the tenants of these apartments is due to the fact that many of them are paying a much lower rental than others notwithstanding the fact that the accomodations are similar. For example: in one building of thirty-two apartments, each of which consisted of living room, bedroom, kitchenette and dinette, five of the tenants paid $65 a month, four paid $60, eleven paid $55, five paid $50, three paid $40, and there were four vacancies. Those paying the lower rentals were the last tenants to come into the building; those paying $65 were under lease and had occupied their apartments from two to four years. This naturally has caused a condition of dissatisfaction on the part of the tenants and the loss of tenants as soon as leases expire, and a corresponding loss of income. If all present contracts or leases were annulled and a new schedule of rentals adopted for a $55 rental from each tenant, and each future reduction passed on to all of the tenants, dissatisfaction would be eliminated and their good-will would result.

The division urgently recommends that rental charges be made uniform in all apartment buildings, having in mind the depositors' investment and the necessity of protecting this investment. Notwithstanding the fact that taxes are higher and mortgage interest rates have not been reduced, future values can be protected by keeping apartments vacant rather than renting them for $10 to $20 a month below cost.

This same policy should apply to the owners of two and three-family

houses. Most of the difficulty in the case of this class of ownership has been caused by the failure of the owners to realize that the income was not sufficient to pay expenses. Over two thousand cases have been called to the attention of the division during the past year in which the owner was facing foreclosure and in practically every case, the owner did not realize that he was renting his property below cost until the bills for mortgage interest, taxes, water, and other expenses came due and he did not have the money with which to pay them.

This division advocates low rents but it also advocates common sense ownership. Every owner is entitled to a reasonable profit on his investment. He has the right to forego any profit if he so desires, but where a mortgage exists representing a loan of other peoples' money, he is not justified in renting the property below cost. This division advocates home ownership and is confident that if the present owners will consider the actual situation, they will be able to forestall mortgage foreclosures and realize the benefits of home ownership that are due them after carrying the tremendous burden they have carried during this period of depression.

Tenants.

This division has been ever alert to curb abuses. When the speculative boom was on, an educational program was successfully conducted, which served to prevent unreasonable rental charges. The cost of construction in the case of new buildings made rentals necessarily high, but at the behest of thousands of tenants who complained to this division, specific findings were made disapproving the charges made by certain owners and these findings generally resulted in reduced rentals.

The fallacy of the present situation, and it is a natural one, is that all normal minded persons aspire to higher standards of living. When their income is reduced or diminishes, pride restrains them from giving up many things to which they have become accustomed. This is particularly true in the case of housing accommodations. Rather than move to a place more within their means, they call on the landlord and insist that he reduce the rent. This procedure has been so constant and universal that in the aggregate, rentals fail to pay the carrying charges.

There are seven distinct classes of housing accommodations, one of which presents a special problem, that of a single home, the owner of which depends entirely upon his personal income to retain it. Other problems arise in connection with hotels; hotel apartments; apartments of first class construction; apartments of second class construction; two to six-family houses with modern conveniences; and multiple dwellings lacking many modern conveniences.

Regardless of whether or not one is an owner or a tenant, it must be realized by everyone that the future stabilization of the cost of housing—a very important item in the cost of living—is dependent upon the sacrifices made by each party involved, whether owner or tenant. Each party must be reasonable. If one has become used to living in a hotel apartment with all of its services and his income has been reduced to such an extent that he cannot continue at the present rental, then by moving into an apartment house of first class construction, it will be possible to secure just as comfortable accommodations at a much lower rental. The same is true in the case of a tenant in an apartment house of first class construction. Rentals have always been 15% to 30% lower in brick veneer apartment buildings of second class construction, although the apartments themselves offer just as spacious and commodious quarters as the others. The next step is a little more drastic in that it necessitates leaving the heated apartment and returning to a two-family house, but after all the only real difference is the necessity of stoking the furnace two or three times a day, and in return for this effort, a monthly saving of 25% in rent may be effected. And

so on, up to the six-family building, which has modern conveniences of heat, light, gas, hot and cold water, and finally to the property lacking modern conveniences, or hotels. The future of the hotel is dependent upon the revival of business. Stabilization of real estate will be a big factor in bringing this about. The real problem is how to reconstruct the property lacking modern conveniences, which for many years has been practically obsolete and badly in need of repairs. In congested areas, particularly, such property should be reconstructed. Banks should and could loan money to bring this about. Many states have passed housing laws creating corporations to carry out such a program. Within the coming year, this plan might well be considered by our own legislature, and this division recommends such action.

If every tenant will adhere to the budget plan of paying not over 25% of his monthly income for rent, and move to a location or environment where this is possible, the division is confident that surprisingly beneficial results will result.

The division is not unmindful of the number of existing vacancies. There are many more families in the commonwealth than there are apartments tenanted. Unemployment and reduced income has made it necessary to "double-up" and often as many as four families are now living in accommodations that normally provided for one, but just as soon as conditions improve so as to provide employment and increased earnings, a housing shortage will result.

In the foregoing paragraphs we have discussed at some length the three factors affecting real estate, recognizing the abnormality of the situation and the necessity that each party concerned co-operate in bringing about the necessary changes to which attention has been directed.

Milk

Patience is the best explanation this division can offer as to the disposition of the producer to continue to supply milk to the consumer, because during the past year there have existed chaotic conditions in the milk industry which happily are in process of adjustment.

His Excellency, Governor Ely, in addition to appointing a Massachusetts member of the New England Governor's Committee, has given freely of his time to the study of an intelligent marketing plan in accordance with which the producer, distributor and consumer would be treated with equal fairness. Although little publicity has been given to the seriousness of the situation, a price-war has existed for the past several months which has resulted in loss of profits to both distributor and producer. The sincere efforts of the New England Governor's Committee to reach an agreement satisfactory to all parties involved is the only thing that has led this division to defer immediate action. Farmers are entitled to a profit for their labor; they have not been getting it.

Thus far there has not been any suspension of production or shortage of supply, and we are confident that this will not occur. The problem of securing a plentiful supply of milk is peculiar to New England. The protection of the local farmers and of the investments by distributors is dependent upon the adoption of an equitable marketing plan without delay.

The universal use of milk really makes it a public utility. Regardless of the reduced incomes of most of our citizens, we are assured by many consumers of their willingness to pay a higher price for milk, if the increase were passed on to the farmer to assure him of a profit. If the proposed plan is adopted, the division can, on short notice, know how much of the consumer's money goes to the farmer.

Installment Purchases

Prior to 1929 the plan of buying on the "$1.00 down and $1.00 a week" or "buy today and pay tomorrow" system had become universal. Many consumers were induced to purchase commodities on the assumption that

future earnings would be such as to enable them to meet all obligations. Articles or goods purchased in this manner ranged from necessaries of life to semi-luxuries and luxuries. Although, in general, consumers are to be commended for their confidence in their ability to pay, the danger lies in the lack of discrimination in selecting reputable firms and the tendency to purchase too many goods at one time. Many consumers fail to realize that by this method they are required not only to pay for the goods purchased, but in the event of their inability to make payments when due, they not only forfeit the goods but are still required to pay the balance of the original amount due over and above the amount received for the goods at resale. The consumer does not become the owner until the account is paid in full. Under the terms of the contract they are loaned the goods, or, in other words, the contract is actually a lease giving the merchant the right to repossess if the consumer fails to meet payments regularly.

Over a period of years this division has adjusted thousands of such cases. The past year has been an unusual one, for although it is not to be expected that the division would learn of all cases involving repossession, over 3,000 individuals have come to this office to request assistance in preventing the repossession of goods. For several years this type of merchant considered our activities in this respect an imposition or interference. During the past year we have convinced most dealers that this activity is beneficial to consumer and retailer alike, and in the case of furniture dealers they have requested the division to serve as arbitrators of these difficulties. The Boston Credit Bureau, Inc., composed of most of the credit stores in the Metropolitan area, has cooperated to prevent the repossession of furniture in many cases.

The procedure of the division in cases of this kind is to procure the facts. If a person owes an original bill of $300 for furniture the lease of which calls for payments of $10 a month and finds his income reduced to such an extent that this $10 per month cannot be paid, we ascertain how much he can pay, meeting the payments promptly. As a rule it is determined that the consumer can pay $5 per month. We then call the furniture dealer and advise him of this fact; the dealer then agrees to such an arrangement and either accepts the terms in writing or asks that the consumer return to the store and sign a new lease, at which time the old one is cancelled.

The laws prescribing the duties and activities of the division do not definitely require the division to intercede in cases of this kind. It has been assumed, however, that whenever intercession would not result in injury to either party involved, particularly when such intercession would prevent suffering, it was proper to intercede.

Most of the firms conducting this type of business have their own credit collection agency and, therefore the division has not encountered the difficulty we have with licensed collection agencies and constables, about which comment will be made later in this report.

Constables

In the 1931 report of the division it was recommended that drastic changes be made in the method by which constables are appointed, to the end that appointing authorities might have a better idea as to the character and fitness of the individual desiring such an appointment, and it was further recommended that the applicant should be required to file an application with pertinent information concerning himself as well as endorsements by several reputable citizens within the community where he resides. It was also recommended that this application be referred to the Chief of Police in the respective city or town for investigation and approval, after which the appointing officer could either appoint or not appoint the applicant. This recommendation was incorporated in a legislative act and has since become law. It is sincerely hoped that this will

serve to eliminate those constables who have abused their power through intimidation or who have exacted excessive payments by consumers.

Collection Agencies

The division has also recommended a change in the laws governing collection agencies, because with few exceptions, the authority given them merely by the filing of a bond with the Commonwealth, has made it possible for them, legally to exploit the public. Some agencies have collected excessive amounts from consumers and have also charged the merchants from whom they received the account for collection.

An unusual method was brought to our attention during the past year by which a collection agent gained admission to a home, and, in lieu of the receipt of cash, convinced the consumer that he should sign an agreement to pay certain amounts monthly. In many cases consumers fail to read agreements, and upon investigation it is often found that they actually signed chattel mortgages on their furniture. Shortly thereafter the collection agencies send letters threatening to reposses the furniture. A number of these cases have been called to our attention, and the perpetrators of this scheme were indicted and found guilty of criminal offence. It is hoped that the law will be amended to prevent any person of this type from obtaining a license.

The policy of the division in all cases concerning creditors is to help the consumer to pay his bills. The same policy holds true in attachment of wage disputes. A person employed after a long period of unemployment finds himself encumbered with a number of unpaid bills. Continued wage attachments are not generally tolerated by the employer because they entail extra bookkeeping. Unless the employer is sympathetic, he will not hold in high regard employees whose wages are attached, and frequently employees are discharged to prevent further attachments.

In many cases called to our attention we have assisted the consumer by budgeting his bills, by determining the amount of his income and applying a certain amount weekly for the payment of outstanding bills. Each creditor has been informed how much he can expect to receive weekly and, without exception, this service has eliminated extra costs of collection and has assured the persons to whom he owed money a regular weekly reduction of the account.

Gasoline

There have been seasonal variations in prices charged for gasoline during the past year but, in general, considering the fact that a 4c tax per gallon has been added to the cost, prices are considered to have been reasonable. The large number of competing gas stations is no doubt responsible for low prices.

There have been complaints filed by some communities which the division has endeavored to adjust. One in particular was relative to the prices being charged on Cape Cod. These prices showed a differential of 3c a gallon compared with inland prices. There was considerable resentment shown by summer residents as a result of this discrimination. The division interceded with officials of the major companies, and presented the resident's case in order to maintain the goodwill of a group who were contributing toward an increase in business and value of real estate in this section of Massachusetts. The officials demonstrated their willingness to cooperate by reducing the price 2c per gallon.

The only bad feature in gasoline sales is the so-called "zone system" by which prices vary in towns adjoining one another. The division has and is still endeavoring to correct this condition and has recommended that gasoline companies work out their price schedules on the basis of refinery prices, plus costs of transportation, to which an additional charge assuring them a fair profit will be added. This plan requires the authorization of New York offices to make it effective, and thus far we have not succeeded in having it put into effect.

Miscellaneous

An examination of the files of the division would be necessary to secure an adequate conception of the miscellaneous types of complaints investigated by it. Included under this heading are complaints as to laundry and cleansing services, shoes, heating apparatus, radios, pianos, automobiles, dresses, coats and other clothing, oil burners and sewing and washing machines; false advertising; substitution of merchandise; sale of goods through the stampbook method, and various other controversies which arise between seller and purchaser.

In handling these cases the division has adopted an informal procedure, by which all pertinent facts are obtained from both sides. Suggestions and recommendations are then made which usually result in a fair and amicable agreement.

Fuel

Anthracite. Since 1927 there has been an annual decrease in the use of anthracite for domestic heating purposes. During the past coal year there was a loss of 1,500,000 tons in comparison with 1927. Part of this loss is attributable to an open winter; the real reason, however, is the failure of the dealers in anthracite to realize that coal should be sold on a competitive basis the same as every other commodity. This condition will continue as long as the price of anthracite remains high. The dealers have failed to realize that anthracite is competing with other fuels, for instead of encouraging each dealer to work out his own problem on a competitive basis, they demand that price-fixing agreements be adopted in each community.

In a recent letter issued by a coal company, the writer stated that the industry must be stabilized and that anyone who does not agree to this arrangement is weak-kneed. Stabilization in every industry is necessary, but the word should not be used as synonymous with "price-fixing". This observation is made with the object in view of showing the fallacy involved. In the opinion of this division, much more anthracite coal would be used if each dealer would work out a price structure based on the costs of the coal at wholesale, plus a fair profit in addition to his operating expenses.

Recently a complaint was filed by Representative Waring of Fall River concerning the high prices charged for anthracite coal in that city, and an investigation was immediately made by the division. Each dealer visited quoted the same retail price. None of the dealers could furnish a good reason why they were charging such price other than that they were told to do so by someone. In other words, there was an understanding between the dealers. Nevertheless these same dealers wonder why householders are burning bituminous coal, coke, briquets, oil and gas instead of anthracite to heat their homes.

For purposes of comparison the division also investigated the prices charged in New Bedford, and although the same price-fixing understanding was in vogue, retail prices charged were $1.50 per ton less than in Fall River. These cities enjoy corresponding advantages. They are both located on the waterfront and are an equal distance from the mines, so that each has the advantage of lower costs of transportation by water than by rail. At the barge rate coal can be brought into each of these cities at a saving of about 75c per ton on transportation.

Prices for coal charged in Fall River are too high. The retailer should protect his business and the consumer alike by quoting prices on a competitive basis with other fuels. The division strongly recommends such action. The condition found in Fall River is prevalent throughout the Commonwealth, and while there is a variation in the prices charged, each community has its fixed price. Price-fixing all along the line should cease.

We are conversant with the wholesale price arrangement by which the operators establish a price at the mine; presumably this price is the same

to each retailer, although there are interlocking arrangements by which local companies are shareholders in the mines, therefore the mine prices are merely prices on paper in some instances. The average winter prices quoted at wholesale during the past year were $7.00 per ton at the mine. The usual spring reduction of $1.00 per ton was offered to stimulate summer production and to keep the miners in Pennsylvania working. The rail rate to Boston is $3.82 per ton. Consequently coal, on board freight in Boston costs the dealer $10.82 per ton during the winter months and $9.82 during the spring season. Retail prices of anthracite have not been reduced enough to result in its increased use. The spring reduction is also passed on to the consumer. It is hoped that for the benefit of all concerned, coal dealers will break away from the "rubber stamp" method of doing business and demonstrate by their initiative that they can operate their business more efficiently and increase its volume by obtaining the goodwill of their customers rather than by following the dictates of a monopolistic industry which is "out-of-step."

At the request of the Anthracite Institute, the Congress of the United States added a tax of $2.00 per ton on all foreign coal in the revenue producing bill drafted for the purpose of balancing the budget. This division opposed the addition of this tax on the principle that coal is a monopolistic natural product and that such legislation would deny the consumer the right to "shop around." The fact that there has been an increased use of foreign coal resulted from the satisfactory quality of coal received from abroad. This coal sold from $1.00 to $1.50 higher than domestic anthracite. The exclusion of this coal by a tax that would result in an embargo left those who are accustomed to burn anthracite at the mercy of a monopoly both as to price and quality. The division called to the attention of Congress the possible reaction that would result from such legislation. Canada purchases over 2,000,000 tons of anthracite coal each year. Our peak of imports from all sources to New England was 658,000 tons. Had a tax been imposed it is only natural that Canada would have looked to other sources for their coal, and the loss of American tonnage would have been very much greater than the amount of coal shut off through embargo restrictions. Congress took cognizance of this situation and excluded Canadian imports from the tax measure. Notwithstanding this tax, imports of anthracite coal into New England from July 1 to December 31, 1932, amounted to 216,863 net tons.

This division advocates the use of anthracite coal, realizing that all money expended therefor will provide purchasing power for the Pennsylvania miner, who in turn will pass it back to Massachusetts industry and labor for the purchase of commodities produced here. The increased use of domestic anthracite can not be brought about unless the industry adopts the regular trade practices that will result in competitive prices and consumer's goodwill.

In 1931 the five year agreement governing miners' wages expired and this was automatically renewed for a period of five years. Unanticipated circumstances have developed which necessitate, in the opinion of the operators, a reduction of wages. The operators and miners have endeavored for several months to secure, through arbitration, a wage schedule but are still at a deadlock. For the benefit of all concerned it is hoped that satisfactory arrangements may be brought about by these groups in order that a continuous supply of coal in Massachusetts may be assured.

The division conducts an annual survey to determine the amounts and kinds of fuels used for domestic purposes. Comparable data presented below indicates the changes which have occurred in the use of various fuels for the past two coal years:

	1930-1931*	1931-1932*
Anthracite—Domestic sizes	4,177,000 net tons	3,566,000 net tons
Buckwheat sizes	175,000 " "	150,000 " "
Bituminous Coal	800,000 " "	600,000 " "
Coke	895,000 " "	980,000 " "
Briquets	150,000 " "	125,000 " "
Oil	140,000,000 gallons	184,000,000 gallons
Gas Installations	5,049	5,100

* Coal year ending April 31.

The above data show that a large part of the decrease in the tonnage of anthracite has been diverted to coke and oil for household heating. Massachusetts imports of foreign anthracite and briquets are given below:

Massachusetts Importation of Foreign Fuels—Net Tons

	Anthracite	Briquets
1927	63,137	55,044
1928	307,796	69,618
1929	321,975	77,733
1930	390,645	57,547
1931	412,526	53,540
1932	413,161	79,725

Coke. The division is not satisfied with the prices being charged for coke. Coke used for household purposes is produced in two different ways; in one case it is a by-product in the manufacture of gas and in the other case gas is a by-product in the production of coke. The manufacturing processes are somewhat similar but the finished products vary in heat unit contents. The companies producing coke as such have apparently been guided in determining retail selling prices, by the prices charged for anthracite and coke is usually sold for about $1.00 per ton less than anthracite in order to attract the consumer. Coke should be sold, however, on the same basis as other commodities—the cost of production, plus a reasonable profit. The same policy should be adopted by public utility companies. Coke left over after gas has been extracted should be sold to the consumer at a much lower price than anthracite.

Trend of Living Costs

The division has continued the monthly compilation and publication of the cost of living index for Massachusetts, which has apparently been of much value to the public at large during the past year. In connection with economy programs undertaken by municipalities, business and welfare organizations and civic groups, and in connection with wage adjustments, there has been a widespread demand for this index, and requests have been received daily for comparable information as to living costs and the purchasing power of the dollar.

This index is based on the retail prices of a representative group of commodities and services necessary to maintain the average household, but usually little, if any, consideration is given to changed living standards. While additional income is usually expended to improve living conditions, any attempt to incorporate these changes in an index would destroy its value for purposes of comparison over a period of years. The division has, therefore, recommended that in using the index in connection with wage disputes and adjustments, modern progress and improved living standards should be given due consideration.

During 1932 the index continued its downward trend and in November reached the lowest level since March, 1917, with a decrease of about 11% from November, 1931. Comparable figures for 1931 and 1932 are given below:

Cost of Living Index — 1913 Equals 100

Month	*1931*	*1932*	*Month*	*1931*	*1932*
January	148.6	134.0	July	140.5	128.5
February	143.9	131.6	August	140.4	128.5
March	143.3	130.8	September	140.7	125.2
April	141.5	129.3	October	139.3	124.7
May	141.1	127.5	November	137.5	122.7
June	140.2	125.8	December	135.7	

Expressed in dollars these figures indicate that $122.70 was required in November, 1932, to purchase a similar quantity of commodities that cost $100.00 in 1913.

Actual income in dollars and purchasing power of such income which are essentially different, are often confused in cost of living and wage studies. While lower commodity costs cause the purchasing power of the dollar to increase, the amount of income alone determines the actual purchasing power at the command of an individual. Any increase or decrease in his income is reflected in his ability to purchase necessaries and luxuries. During the last year the purchasing power of the dollar in Massachusetts increased from $.73 in November, 1931, to $.82 in November, 1932, but the actual purchasing power of a large percentage of the population has undoubtedly been materially reduced, during the same period, by unemployment and decreased income.

It is the laudable aim of American families to better their living standards and conditions, and once the comforts and conveniences of better living have been obtained they naturally desire to maintain these standards, even in the face of reverses which would ordinarily force a return to a less expensive method of living. Reduced family income coupled with the desire to maintain standards has resulted in the incurring of large indebtedness by many citizens which they will be able to pay only after years of saving and self-denial, even with the return of prosperity and higher wages. Families, who quite properly expected to obtain an income in excess of their ordinary living expenses and had every reason to believe it would continue indefinitely, mortgaged their future earnings prior to the depression by purchasing luxuries and semi-luxuries during a period of easy credit. The accumulated debts are a matter of much concern to both dealer and consumer and must be given proper consideration by both business and public officials, if we are to avoid wholesale bankruptcy proceedings in the future. Most people are honest and intend to pay their obligations, but they must be shown due consideration and not be forced to take steps detrimental both to themselves and their creditors. In all cases brought to its attention, the division has attempted to assist the parties concerned in effecting agreements for the payment of bills which are fair to both parties and which the debtor can afford to pay without causing undue hardship to himself and family.

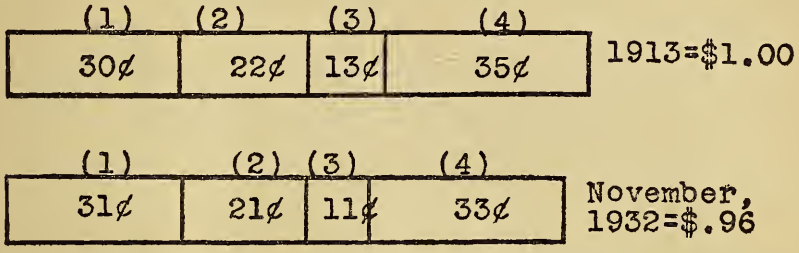
Elements of Budget

Food. During 1932 the food index dropped below the 1913 level or base level, for the first time since 1915, and a decrease of about 14% was noted between November, 1931, and November, 1932. The lower prices of food commodities have undoubtedly prevented much suffering during this period of decreased incomes, and studies by the division indicate that a higher income does not usually result in increased per capita food consumption, although a greater variety of more expensive items may be included in the family menu.

The food index of the division is based on retail prices of 37 food commodities and represents 37.6% of the total budget expenditure. These prices are obtained monthly from both chain and service stores throughout the Commonwealth and combined in a table of weights by which the

varying importance of each item is applied to obtain the weighted index of the whole number of items.

To show the comparable cost of food based on the index, the food section has been divided into four groups; and the approximate division of the food dollar into these groups for 1913 and November, 1932, is given below:



(1) Combined meats.
(2) Milk, butter, cheese, eggs.
(3) Flour, corn meal, bread, potatoes.
(4) Other food items.

While the index of combined meats decreased 13½% during the twelve months ending November 30, 1932, it remained above the 1913 figure; prices of beef products and veal, however, are the only meats which have dropped below the base price. The index for pork products decreased about 24% during this period.

The decrease in the dairy products combination, which includes eggs, butter, milk and cheese, was about 17% during the year. Substantial reductions in butter and milk prices were largely responsible for this decrease. The prices of practically all other food items included in the budget are now below the 1913 level.

Comparable index number of combined foods are given below:

Month	*1932*	*1931*	*Month*	*1932*	*1931*
January	105.6	128.5	July	98.8	115.7
February	102.2	121.3	August	99.3	117.0
March	100.3	120.9	September	99.2	117.4
April	98.6	118.9	October	97.4	115.1
May	96.2	115.9	November	95.8	111.6
June	93.0	115.0	December		107.8

As indicated by the above figures, the low point of the year was in June when the index was 93.0, or 7% below the base index of 1913.

Clothing.

Clothing indices are largely based on prices of staple goods entering into the production of articles of clothing, as the wide variation of styles and types of manufactured goods make this budget item most difficult to standardize. The cost of cloth used in the manufacture of clothing, however, may have little if any relation to the cost of the completed garment, and articles made from similar fabrics but tailored by different makers can be purchased at a wide range of prices.

Foreign-made clothing and footwear manufactured in countries having low wage rates made possible by low living standards are undoubtedly responsible for many idle factories in New England. These goods are placed on sale in our stores at prices which cannot be met by our manufacturers, who must comply with our relatively advanced labor laws and pay living wages to their employees.

The "buy American" campaign may result in a return to American-made merchandise but not without the full co-operation of our merchants. During this period of decreased income and unemployment, a large majority of our consumers are obliged to purchase goods at the lowest pos-

sible prices, regardless of where or by whom the garments are manufactured.

The index of combined clothing dropped during the year from 145.8 in November, 1931 to 120.4 in November, 1932. This decrease of about 17% occurred on the articles included in the budget of the division. If prices of foreign-made goods and some other items not included in this budget were considered, a larger decrease would probably be recorded.

Shelter.

The shelter index dropped from 151.0 to 135.0 or about 10½% during the twelve months ending November 30, 1932. This item represents 21.8% of the total budget expenditure allowance, and while this division has continually recommended that not over one quarter of the income should be paid for shelter, many families continue to exceed that proportion.

Property owners who purchased during the period of increasing real estate values have been reluctant to reduce rentals charged for this property, because decreased income without a corresponding decrease in carrying charges, might result in a loss of equity through inability to meet expenses. Vacancies in practically all types of houses, however, have forced general rent reductions, and the landlord has been more concerned with his receiving the rent charged than with the amount of income he had hoped to receive from the property. The problem of rentals is discussed in more detail in the summary of activities, included in this report.

Fuel and Light.

An allocation or weighing of 5% of the total budget is given the fuel and light group of commodities based on prices of anthracite, gas, electricity and kerosene, combined under the respective weights of 61, 20, 15 and 4. The reduction in the index number for this group was much less than in other main budget groups and amounted to only 7%.

Anthracite prices, which are a source of much controversy and complaint, were slightly reduced but other items in this group showed little change from last year. While other fuels are rapidly becoming competitors of anthracite, the prices charged are largely based on the selling prices of this principal fuel and, are a small factor in reducing fuel prices.

Prices of gas and electric services, which are controlled by the State Department of Public Utilities, have been reduced in some instances and numerous requests for lower prices filed with that department may result in reduced costs of these services in other localities in the near future. A complete study of the income from all by-products might also result in lower coke prices based on cost of product rather than on prices of competing fuels.

Oil for heating purposes is not included in the fuel and light index, but the increased use of this fuel has resulted in its becoming a very important competitive item in the budget. The comparatively low price of range oil burners purchased on small payment contracts, and the opportunity afforded the consumer to purchase oil in small amounts and control the use of fuel during mild weather have evidently appealed to those who are making an effort to balance reduced income with current expenses.

Sundries.

The sundries group of the budget includes a miscellaneous assortment of goods and services not included in other groups and is given a weighing of 22.8% in the total budget.

During 1932 the index for this group decreased 3.8%. Many important items in this section, such as ice, carfare, medical attendance, insurance and organizations have shown little, if any, decrease, but lower prices of furniture and furnishings, entertainment, tobacco, reading material, etc., are largely responsible for the reduction in the index number.

Conclusions

The division has enjoyed unusual co-operation from most of the business concerns engaged in serving the public. Arbitrariness is so infrequent that it is hardly worthy of mention. Surplus of most commodities and keen competition has provided the lowest commodity prices since 1913 with the exception of fuel. This does not necessarily imply a healthy condition but with the low earning power of the people, it is representative of the co-operation without which we would be unable to favorably compare with states not so far removed from the sources of supply.

Extraordinary demands on the personnel of the division to the extent of 15,000 individual cases has rendered it impossible for the division to complete and publish the results of special cost-of-living surveys in certain communities. These will be undertaken as expeditiously as possible and when published will be up to date. None of the activities of the division has or will restrict anyone's right to carry on a legitimate business at a fair profit.

As the pendulum of business activity swings upward, prices are bound to rise; the amounts of these increased costs should be determined solely in accordance with the increased cost of production. Should any individual or group endeavor to exploit the people of Massachusetts through speculative methods, the division will be prepared at all times to furnish the facts concerning the cost of production, transportation and all the elements involved in obtaining foods, clothing and other commodities for the home. This information will be furnished to the consumer through the press of Massachusetts, which has co-operated heartily in this service. The division desires to express its gratitude to the newspapers for granting liberal use of their columns for the publication of information which it is believed the people ought to have for their guidance.

APPENDIX I

COST OF LIVING CURVE

Statistical Method and Tables of Proportion and Prices

The Division and its predecessor the Special Commission on the Necessaries of Life have used in the computation of the Massachusetts cost of living index the same percentages for the major sections of the budget as those used by the National Industrial Conference Board, until July of 1931. These weights, together with others which applied to many individual items of the budget, were changed in 1931 after much study and investigation, and the division believes that the new allocation of weights represents the relative importance of items and groups to a greater degree of accuracy.

The present allocation of weights for the major budget sections are as follows:

Food	37.6	Fuel and Light	5.0
Clothing	12.8	Sundries	22.8
Shelter	21.8		

In computing an index of living costs, a list of representative articles in common use is first selected, and it is then necessary to assign importance to them in the total, in proportion to the extent to which they are commonly used. Food represents a much larger expenditure than ice or fuel; and in the list of foods a 20 per cent increase in the price of meats is much more important than a hundred per cent increase in the price of pepper or salt. The proportions assigned to the various commodities are called weights or weightings, and an index so constructed as to recognize the relative importance of different articles is called a "weighted index". The list of articles and weightings adopted by the division are given in detail in Tables 1 to 5, inclusive.

Having selected the list of commodities, some particular time must be chosen as a basis of comparison, and all prices at that time are called base prices, represented by 100 per cent in the scale. For the Massachusetts index, the calendar year 1913 was selected as a base year because this gave a true pre-war picture, and because this is the base used in the widely quoted index of the U. S. Bureau of Labor Statistics. Monthly quotations have been secured before and after the basic period, and each quotation is divided by the basic quotation to give the index number for the later month. Monthly quotations since 1910 have been used in the case of foods. Thus the basic, or 1913, quotation on flour was 91 cents per one-eighth barrel bag, and in November, 1931, the price was 85.4 cents, which, divided by the base, gave the index number for flour as 93.4 in November 1931. Each quotation is in turn divided by the base price, and a table of index numbers, or percentages, is the result. A table is made for each commodity, and then the index numbers are combined using the weightings to which reference has been made. A different selection of commodities and a different selection of weightings will cause the indices to be quite different. Each is a true presentation of certain facts; no index can present all of the facts. In its studies the division has endeavored to choose not only the most necessary commodities, but also to combine them in proper proportions, so that a fair presentation is made of conditions in Massachusetts.

Some idea of the magnitude of work involved in making an index may be had when it is realized that over 400,000 computations were made in constructing the original index of living costs.

Food Index

The index of foods, which has a weighting of 37.6 in the total, is a composite based upon the selling prices of thirty-seven articles of food. These articles of food are assigned weights in accordance with their relative importance. The allocation of these weights follow:

Table 1.—Allocation of Commodity Weights in the Food Index

Fresh beef	1,605	Tea	187
Salt beef	242	Coffee	287
Fresh hog products	379	Sugar	518
Salt hog products	361	Molasses	45
Other meat	363	Flour and meal	480
Poultry	301	Bread	526
Fish	298	Rice	57
Eggs	570	Potatoes	457
Milk	788	Other vegetables	476
Butter	881	Fruit	253
Cheese	75	Vinegar, pickles and condiments	80
Lard	241	Other food	530
Total			10,000

Table 2.—List of Commodities in Combinations included in the Food Index

Fresh beef: Steak, sirloin steak, and rump steak. Roasts and Stews: Chuck roast, round beef.

(The above cuts are given equal weight in the item of fresh beef.)

Salt beef: Fancy brisket.

Fresh hog products: Fresh pork loins.

Salt hog products: Ham, Bacon, Salt pork.

(The above cuts are given equal weight in the items of salt hog products.)

Other meat: Lamb. Veal.

(Lamb is given a weighting of 2 and veal 1 in the item of other meat.)

Poultry: Fowl.

Fish: Salt cod. Fresh haddock.

(The above are given equal weight in the item of fish.)

Flour and meal: Wheat flour. Corn meal.

(Flour is given a weighting of 3 and corn meal 1 in the item of flour and meal.)

Other vegetables: Onions. Canned tomatoes. Canned peas. Canned corn.
(The above are given equal weights in the item of other vegetables.)
Fruit: Evaporated apples. Prunes.
(The above are given equal weights in the item of fruit.)
Other food: Dried beans. Oatmeal.
(Dried beans are given a weighting of 2 and oatmeal 1 in the item of other food.)

Shelter Index

The index of shelter, which has a weighting of 21.8, is based on rentals charged for many houses in many parts of the commonwealth. These ranged in 1910 from $12 to $32 per month, and in November, 1931, from $20 to $50 per month. The list includes single, two-family, and three-family houses, and middle-priced apartments, heated and unheated, but does not include mercantile or office buildings.

Clothing Index

The index of clothing, which has a weighting of 12.8 in the total budget, is derived from quotations on the following articles. The weighting of the various articles of clothing, as combined in the clothing index, is also shown.

The standard blue serge has been used as the basis for quotations for men's outer garments. Overcoats have varied in weight and style, and it has been almost impossible to find a standard for quotation. Overcoating fabric prices of uniform weight have, however, advanced in the same ration as blue serge prices and, therefore, the index of the serge suit cost, which is almost identical with the index serge fabric costs, has been used as a basis for the suit, overcoat and trousers items. For night garments the composite of cotton fabrics has been used, as all cheaper cotton fabrics have advanced in nearly the same ratio, and the quotation will therefore cover night garments made of either canton or domet flannels or long cloth. In the list of women's clothes the same index based upon blue serge has been used for the topcoat, suit and street dress. The items of nightgowns, slips, kimonos, waists, house dresses and aprons are combined, and the average index of cotton piece goods has been used.

Table 3.—Allocation of Weightings in the Clothing Index

Men's

Overcoats, suits, trousers	48	Shirts	7
Shoes	9	Collars	1
Hats	6	Underwear	3
Gloves	2	Night garments	3
Socks	5		
Total	84		

Women's

Suits, topcoats, street dresses	42	Gloves	2
Underwear	4	Hosiery	7
Waists, kimono, house dresses, aprons, nightgowns, slips	10	Corsets	2
Shoes	8	Hats	5
Total	80		

Fuel, Heat and Light Index

The index for fuel, heat and light, which has a weighting of 5.0, is based upon selling prices of coal and kerosene throughout the state, and

upon the rates for gas and electricity in the following cities: Boston, Springfield, Worcester, Lawrence, Lowell, New Bedford and Fall River.

The weightings assigned to these different commodities are based upon a study of family expenditures, and are guaged to cover conditions in wage-earning families throughout the state. The weightings are as follows:

Table 4.—Allocation of Weightings in the Fuel Index.

Coal	61	Gas	20
Kerosene	4	Electricity	15
Total			100

SUNDRIES INDEX

For sundries, substantially the same list of commodities that is quoted in the report of the National Industrial Conference Board (research Report No. 22) has been used with the addition of ice. The list, together with weightings assigned to the different commodities, is as follows:

Table 5.—Allocation of Weightings in the Sundries Index

Ice	847	Tobacco, etc	589
Carfare	1,056	Reading	934
Entertainment	902	House furnishings	1,834
Medicine	1,015	Organizations	879
Insurance	1,111	Candies, soft drinks, etc.	322
Church	511		
Total			10,000

It should be noted that no provision is made in the above classification for savings other than insurance.

Table 6. — Cost of Living Index Numbers by Elements

1910

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	94.8	94.7	95.9	95.5	94.9	95.3	96.4	96.9	97.3	96.7	96.5	92.9
Clothing	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
Shelter	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
Fuel and Light	99.0	99.0	99.0	92.6	92.6	92.6	94.1	94.1	96.3	95.7	95.7	95.7
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	96.1	96.1	96.6	96.1	95.8	96.0	96.5	96.7	97.0	96.7	96.6	95.1

1911

Food	95.2	94.5	93.5	91.5	91.6	91.5	94.2	95.4	97.9	98.9	98.4	98.1
Clothing	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Shelter	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
Fuel and Light	96.9	96.9	96.9	92.3	92.3	92.3	94.5	94.5	96.6	96.6	96.6	96.6
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	96.1	95.8	95.4	94.3	94.3	94.3	95.6	96.1	97.3	97.7	97.5	97.4

1912

Food	101.0	102.9	100.7	98.7	103.3	99.2	100.6	100.3	101.2	103.0	103.2	100.2
Clothing	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.8	99.8
Shelter	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0
Fuel and Light	97.6	97.6	101.2	101.8	101.8	97.5	97.5	97.5	99.6	103.9	103.9	103.9
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	100.7	101.5	100.7	99.9	101.9	99.9	100.4	100.3	100.8	101.9	101.9	100.6

Table 6. — Cost of Living Index Numbers by Elements — Continued

Elements	January	February	March	April	May	June	July	August	September	October	November	December
1913												
Food	98.2	96.9	97.9	99.7	99.3	101.4	102.2	101.5	100.5	101.7	101.8	101.2
Clothing	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.9	100.9	100.9	100.9
Shelter	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fuel and Light	104.3	102.2	102.2	95.7	95.7	95.7	97.8	100.0	100.0	102.2	102.2	102.2
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	99.4	98.7	99.2	99.6	99.4	100.3	100.8	100.6	100.2	101.0	101.0	100.8
1914												
Food	102.1	101.9	101.6	99.5	98.9	101.1	103.3	105.3	105.7	107.2	105.0	103.9
Clothing	101.5	101.7	101.7	101.7	101.7	101.7	101.7	101.7	102.0	103.3	103.3	103.3
Shelter	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5
Fuel and Light	101.9	101.9	101.9	95.5	95.5	95.5	97.3	99.5	99.5	99.5	99.5	99.5
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	101.8	101.8	101.6	100.4	100.1	100.6	102.1	103.1	103.3	104.1	103.2	102.7
1915												
Food	103.2	101.1	98.5	99.4	100.6	100.3	100.7	99.7	101.0	102.7	104.2	103.0
Clothing	105.8	106.8	106.8	106.8	106.8	106.8	106.8	106.8	107.5	108.8	108.8	108.8
Shelter	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1
Fuel and Light	101.1	101.1	101.1	94.2	94.2	94.2	96.4	98.5	98.5	98.5	98.5	100.7
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.5	101.0	101.3	101.5
Combined	102.9	102.1	101.0	101.0	101.5	101.4	101.7	101.4	102.2	103.2	103.9	103.5
1916												
Food	105.5	106.5	107.2	108.8	110.0	113.3	112.4	112.1	116.0	117.3	122.2	124.7
Clothing	114.5	115.4	115.4	121.2	121.2	121.2	121.2	121.2	121.6	125.2	125.2	125.2
Shelter	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3
Fuel and Light	101.3	101.3	101.3	101.3	99.2	101.3	101.0	102.9	102.9	106.9	113.3	113.3
Sundries	102.0	102.3	102.5	103.0	103.3	103.5	104.0	105.0	106.0	107.0	108.0	109.0
Combined	105.7	106.3	106.7	108.2	108.7	110.3	109.9	110.1	112.1	113.6	116.2	117.5

1917

Food	126.2	129.1	132.0	137.5	142.1	147.5	142.9	143.6	149.3	153.1	153.8	155.7
Clothing	137.7	137.7	138.9	138.9	138.9	145.0	145.0	145.0	145.6	159.9	159.9	159.9
Shelter	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1
Fuel and Light	113.2	113.2	113.2	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7
Sundries	110.0	110.0	112.0	113.0	114.0	116.0	117.0	119.0	122.0	124.0	128.0	130.0
Combined	119.6	121.1	122.7	125.3	127.5	131.0	129.3	130.0	133.1	137.1	138.2	139.6

1918

Food	155.8	159.3	154.4	150.9	155.9	162.6	165.2	170.5	178.3	179.0	180.3	183.1
Clothing	176.5	180.4	180.6	193.6	193.6	193.6	201.3	201.3	202.4	209.4	209.4	209.4
Shelter	111.7	111.7	111.7	108.2	108.2	108.2	108.2	108.2	108.2	116.4	116.4	116.4
Fuel and Light	125.3	125.3	125.3	125.3	125.3	125.7	132.1	132.1	132.1	132.6	133.8	143.1
Sundries	134.0	136.0	140.0	143.0	146.0	150.0	151.0	152.0	153.0	154.0	155.0	155.0
Combined	144.6	147.0	145.7	145.0	148.7	152.4	155.1	157.6	161.3	164.2	165.0	166.1

1919

Food	180.1	174.2	174.1	176.6	179.7	181.0	182.2	187.4	182.0	184.7	188.9	189.1
Clothing	221.5	223.5	223.8	235.3	235.8	235.8	235.8	237.2	240.9	256.3	271.6	272.3
Shelter	118.4	118.4	118.4	115.5	115.5	115.5	115.5	115.5	115.5	129.6	129.6	129.6
Fuel and Light	143.1	135.1	135.1	135.7	140.0	144.3	145.8	150.1	150.1	150.7	152.9	153.5
Sundries	155.0	155.0	155.0	156.0	158.0	160.0	163.0	165.0	167.0	172.0	175.0	175.0
Combined	167.5	164.7	164.7	167.0	169.1	170.3	171.5	174.6	173.1	179.9	184.5	184.7

1920

Food	200.9	195.5	198.9	198.2	207.9	207.9	216.9	205.1	202.5	194.7	187.2	179.6
Clothing	286.2	291.3	299.8	305.5	302.0	288.4	280.9	282.9	285.9	268.9	258.3	226.0
Shelter	131.0	131.0	131.0	133.8	134.9	139.4	139.4	142.4	147.8	147.8	150.6	151.7
Fuel and Light	154.2	160.7	161.6	170.8	171.1	171.7	172.1	175.0	188.5	189.2	190.0	189.9
Sundries	175.9	175.9	175.9	183.0	183.0	185.0	185.0	185.0	188.0	190.0	192.0	192.0
Combined	192.0	190.8	193.4	196.3	200.3	199.7	202.6	198.5	200.1	194.9	191.3	183.9

Table 6. — Cost of Living Index Numbers by Elements — Continued

Elements	January	February	March	April	May	June	July	August	September	October	November	December
1921												
Food	171.5	158.6	145.1	142.1	135.3	133.5	139.5	142.0	139.9	138.7	137.2	139.4
Clothing	219.9	214.4	208.2	206.5	201.6	197.1	191.8	187.1	186.7	186.2	187.6	186.1
Shelter	151.7	151.7	153.2	156.3	159.4	159.4	159.4	159.4	161.0	161.0	161.0	161.0
Fuel and Light	188.8	188.3	187.5	177.4	176.8	176.1	175.9	175.9	175.4	180.9	180.0	180.5
Sundries	192.0	190.0	190.0	188.0	188.0	185.0	183.0	183.0	180.0	180.0	180.0	178.0
Combined	179.5	172.9	166.4	164.5	161.4	159.4	160.8	161.4	160.0	159.7	159.2	159.6
1922												
Food	136.1	135.6	133.1	135.4	134.0	134.1	137.2	136.3	136.3	138.2	139.9	139.8
Clothing	180.1	179.2	176.9	176.5	176.1	176.5	176.1	174.9	177.6	178.4	179.1	179.4
Shelter	162.5	162.5	162.5	162.5	162.5	162.5	162.0	162.0	162.0	162.0	162.5	162.5
Fuel and Light	174.9	174.9	173.7	172.8	172.8	172.7	172.0	172.9	177.0	182.6	184.5	184.8
Sundries	178.0	177.0	177.0	174.0	174.0	174.0	174.0	172.0	169.7	169.7	169.7	168.8
Combined	157.3	156.8	155.3	155.6	154.9	155.0	156.2	155.3	155.4	156.6	157.7	157.5
1923												
Food	139.3	141.3	138.8	139.3	141.0	140.0	143.4	142.0	143.5	144.9	142.0	144.1
Clothing	178.0	182.2	182.8	184.0	183.2	184.1	182.1	182.2	183.4	185.9	187.0	186.1
Shelter	162.5	162.5	164.5	166.0	166.5	167.0	167.0	167.0	167.0	167.5	167.5	167.5
Fuel and Light	184.8	184.2	178.2	178.6	177.5	177.4	178.2	177.0	177.7	181.6	182.1	181.7
Sundries	168.8	168.8	168.8	170.5	170.5	170.5	170.5	170.5	170.5	170.5	170.5	170.5
Combined	157.1	158.5	157.5	158.5	159.1	158.9	160.1	159.5	160.3	161.6	160.5	161.3
1924												
Food	141.0	139.9	139.0	136.1	136.4	137.1	137.5	138.5	142.4	142.1	141.5	143.0
Clothing	186.8	187.4	186.0	184.9	183.3	181.6	181.4	178.8	180.6	180.1	178.4	181.2
Shelter	168.0	168.0	168.0	168.0	168.0	168.0	168.0	172.0	172.0	172.0	172.0	172.0
Fuel and Light	178.4	178.6	178.8	177.1	177.0	177.2	177.5	177.4	179.6	179.3	179.5	179.6
Sundries	171.4	171.4	171.4	171.4	171.4	171.4	171.4	170.5	170.5	170.5	170.5	172.2
Combined	160.1	159.7	159.2	157.7	157.6	157.7	157.8	158.4	160.5	160.3	159.8	161.2

1925

Food	144.7	142.8	144.4	143.4	143.7	146.8	147.9	150.3	150.3	153.1	154.1	155.6
Clothing	177.9	177.6	181.6	181.2	180.8	182.3	182.1	180.7	181.1	181.5	182.1	186.6
Shelter	172.0	172.0	172.0	172.0	172.0	172.0	172.0	172.0	170.0	170.0	170.0	170.0
Fuel and Light	179.9	180.0	175.6	175.7	175.7	176.6	178.5	181.2	181.2	181.2	186.4	197.4
Sundries	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	171.4	171.4	171.4	172.2
Combined	161.5	160.6	161.6	161.1	161.2	162.8	163.4	164.4	163.9	165.1	165.9	168.0

1926

Food	151.8	153.9	149.2	151.9	148.0	148.3	147.7	145.4	146.8	147.3	147.4	147.9
Clothing	184.5	181.7	182.3	179.2	180.3	181.2	178.6	178.7	177.0	177.7	177.5	177.5
Shelter	170.0	170.0	170.0	170.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0
Fuel and Light	214.6	198.0	183.3	181.4	181.9	182.0	183.3	184.4	184.4	185.2	185.7	185.5
Sundries	172.2	172.2	172.2	172.2	170.5	170.5	169.7	169.7	169.7	170.5	171.4	171.4
Combined	167.0	166.6	163.9	164.5	162.3	162.5	161.9	160.9	161.3	161.8	162.1	162.3

1927

Food	145.9	143.7	142.1	143.4	145.7	145.5	142.8	142.2	142.6	142.1	144.6	145.0
Clothing	176.1	176.3	175.1	175.0	173.9	173.3	170.2	171.6	172.5	172.1	172.8	172.8
Shelter	168.0	168.0	166.0	166.0	166.0	166.0	166.0	165.0	165.0	165.0	165.0	165.0
Fuel and Light	185.4	185.3	184.6	181.6	178.5	178.4	179.0	179.3	181.5	181.5	181.5	181.4
Sundries	171.4	171.4	171.4	170.5	170.5	170.5	170.5	170.5	169.7	169.7	170.5	170.5
Combined	161.2	160.3	159.0	159.2	159.9	159.7	158.6	158.0	158.2	158.0	159.3	159.5

1928

Food	145.4	144.2	142.2	144.6	146.1	144.6	148.6	149.3	152.7	150.0	149.0	147.6
Clothing	172.6	172.7	172.6	171.7	173.8	172.1	172.5	170.9	171.5	169.3	171.5	172.8
Shelter	165.0	165.0	165.0	165.0	165.0	165.0	165.0	163.0	163.0	163.0	163.0	163.0
Fuel and Light	181.4	181.4	181.2	175.4	175.4	175.4	175.4	175.5	177.9	177.9	179.7	179.6
Sundries	170.5	169.7	169.7	168.8	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
Combined	159.6	158.9	158.0	158.4	159.6	158.7	160.5	160.3	161.9	160.5	160.5	160.0

Table 6. — Cost of Living Index Numbers by Elements — Concluded

1929

Elements	January	February	March	April	May	June	July	August	September	October	November	December
Food	148.5	146.5	147.6	147.7	149.1	148.1	151.8	154.7	153.0	152.1	149.3	148.9
Clothing	173.3	170.1	174.1	173.6	173.6	173.6	172.2	173.6	173.2	173.5	173.6	174.0
Shelter	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0
Fuel and Light	179.5	179.6	179.7	177.9	174.2	174.2	176.4	176.3	178.9	179.0	179.1	179.3
Sundries	170.0	169.2	169.2	168.9	168.9	167.9	167.7	167.7	167.7	168.4	169.2	169.2
Combined	160.5	159.0	160.0	159.8	160.2	159.6	161.1	162.5	161.9	161.7	160.7	160.6

1930

Food	146.4	145.8	141.9	142.1	141.7	139.3	137.6	136.6	137.2	137.0	132.9	130.8
Clothing	173.6	173.6	173.5	173.3	173.1	173.0	172.4	172.7	171.6	168.8	165.5	164.0
Shelter	163.0	163.0	163.0	163.0	163.0	161.0	161.0	161.0	161.0	161.0	161.0	160.5
Fuel and Light	179.4	179.4	178.3	178.1	170.7	170.7	172.1	174.3	175.0	175.8	175.4	175.5
Sundries	169.2	168.1	167.2	167.2	167.0	166.9	166.5	165.7	165.7	165.3	165.6	165.0
Combined	159.4	158.9	157.0	157.1	156.4	155.0	154.2	153.7	153.9	153.4	151.2	149.9

1931

Food	128.5	121.3	120.9	118.9	115.9	115.0	115.7	117.0	117.4	115.1	111.6	107.8
Clothing	162.4	157.4	156.6	154.5	151.0	149.2	149.1	148.6	148.4	148.0	145.8	145.0
Shelter	160.5	156.0	156.0	156.0	155.0	155.0	155.0	153.0	153.0	151.0	151.0	151.0
Fuel and Light	175.5	175.4	175.8	166.0	163.1	163.1	164.9	165.5	167.5	168.3	168.7	168.1
Sundries	164.2	163.8	162.2	161.3	158.8	157.5	157.5	157.0	157.0	156.6	156.0	154.6
Combined	148.6	143.9	143.3	141.5	141.1	140.2	145.0	140.4	140.7	139.3	137.5	135.7

1932

Food	105.6	102.2	100.3	98.6	96.2	93.0	98.8	99.3	99.2	97.4	95.8	94.9
Clothing	138.8	135.9	135.2	132.2	128.8	124.7	125.4	123.9	122.0	123.9	120.4	121.7
Shelter	151.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	135.0	135.0	135.0	135.0
Fuel and Light	168.0	164.0	164.0	155.8	154.2	153.5	154.9	154.9	158.9	159.0	157.3	156.8
Sundries	154.6	152.9	152.9	152.9	151.2	151.2	152.9	152.9	152.9	152.9	150.1	150.1
Combined	134.0	131.6	130.8	129.3	127.5	125.8	128.5	128.5	125.2	124.7	122.7	122.8

APPENDIX II

Fuel Statistics

Table 1.—Anthracite—Total Production, New England Receipts, Imports

Years	(Net Tons) United States Production	New England Receipts	New England Imports
1916	87,578,000	10,715,000	109*
1917	99,612,000	11,680,000	335*
1918	98,826,000	13,621,000	434
1919	88,092,000	10,578,000	1,694
1920	89,598,000	11,255,000	993
1921	90,473,000	11,374,000	1,289
1922	54,683,000	6,471,000	92,321
1923	93,339,000	12,184,000	144,583
1924	87,927,000	10,611,000	92,640
1925	63,839,000	8,280,000	224,023
1926	85,454,000	10,612,000	387,458
1927	80,647,000	9,146,000	106,157
1928	76,746,000	9,376,000	369,036
1929	76,888,000	9,040,000	483,979
1930	69,732,000	8,390,000	657,987
1931	59,667,000	7,062,000	610,648
1932		5,639,000	567,397

*Fiscal year ending June 30.

Table 2.—Bituminous Coal—Total Production, New England Receipts Imports

Years	(Net Tons) United States Production	New England Receipts	New England Imports
1916	502,520,000	24,122,000	677,809*
1917	551,791,000	23,504,000	399,914*
1918	579,386,000	27,171,000	407,056
1919	465,860,000	18,182,000	24,373
1920	568,667,000	22,434,000	67,331
1921	415,922,000	17,188,000	26,388
1922	422,268,000	18,807,000	2,258,330
1923	564,565,000	23,684,000	687,170
1924	483,687,000	18,877,000	46,814
1925	520,053,000	21,313,000	35,813
1926	578,290,000	21,087,000	62,364
1927	520,684,000	22,426,000	53,096
1928	493,252,000	19,652,000	76,889
1929	526,361,000	21,311,000	50,114
1930	461,879,000	19,901,000	32,385
1931	378,241,000	17,976,000	66,728
1932		15,021,000	53,589

*Fiscal year ending June 30.

Table 3.—New England All-Rail Movement of Coal as shown by Number of Cars of Coal passing East through the Gateways

(Daily Average)

Years	Anthracite				Commercial Bituminous			
	Boston & Maine	Boston & Albany	New York, New Haven & Hartford	Total	Boston & Maine	Boston & Albany	New York, New Haven & Hartford	Total
1921	169	74	207	450	87	66	125	278
1922	109	39	124	272	57	52	100	209
1923	186	75	217	478	97	105	129	331
1924	161	60	205	426	52	49	108	209
1925	126	46	167	339	77	61	135	273
1926	168	57	234	459	78	68	148	294
1927	140	50	210	400	74	62	135	271
1928	137	47	245	429	68	49	108	225
1929	134	43	222	399	74	60	121	255
1930	101	47	202	350	62	51	110	223
1931	75	32	177	284	49	40	102	191
1932	77	23	142	242	47	32	84	163

Table 4.—New England Fuel Imports by Origin—1932 Calendar Year

(Net Tons)

ANTHRACITE

Origin	*Maine and New Hampshire*	*Massachusetts*	*Rhode Island*	*Connecticut*	*Total*
United Kingdom	12,749	207,256	49,973	0	269,978
Belgium	0	16,947	2,352	0	19,299
Russia	36,505	143,777	42,146	3,678	226,105
Germany	1,008	45,181	2,128	3,697	52,014
Total	50,262	413,161	96,599	7,375	567,397

BRIQUETS

Origin	*Maine and New Hampshire*	*Massachusetts*	*Total*
Germany	1,807	59,282	61,089
Belgium	0	13,228	13,228
United Kingdom	0	7,215	7,215
Total	1,807	79,725	81,532

COKE

Origin	*Maine and New Hampshire*	*Massachusetts*	*Total*
Belgium	0	5,488	5,488
Germany	672	15,529	16,201
Netherlands	0	3,356	3,356
United Kingdom	0	44,585	44,585
Total	672	68,958	69,630

BITUMINOUS COAL

Origin	*Maine and New Hampshire*	*Vermont*	*Total*
Canada	53,428	161	53,589

Table 5.—Deliveries of Domestic-sized Anthracite for Last Eight Coal Years—The Commonwealth of Massachusetts.

COAL YEAR, APRIL 1 TO MARCH 31	Net Tons
1924–1925	5,114,515
1925–1926	4,243,872
1926–1927	5,087,360
1927–1928	4,744,324
1928–1929	4,912,810
1929–1930	4,703,019
1930–1931	4,177,238
1931–1932	3,565,768
1932–1933 (8 months)	1,802,648

Population 1930 (United States Census) 4,249,614

Table 6.—Freight Tariffs per Gross Ton and Average Retail Price per Net Ton Delivered on Domestic-sized Anthracite for Certain Representative Municipalities of Massachusetts

City or Town	Delaware & Hudson and Philadelphia and Reading Freight Tariffs	Average Retail Prices December 1, 1932	
		Stove	Pea
Adams	$3.78	$13.25	$11.50
Brockton	4.54	14.75	13.00
Fall River	4.16	14.50	12.00
Fitchburg	4.79	15.50	13.00
Framingham	4.54	14.50	12.50
Gloucester	4.54	14.50	12.50
Greenfield	4.16	15.00	12.75
Haverhill	4.91	14.00	11.25
Holyoke	4.16	14.25	12.00
Lawrence	4.91	16.00	13.00
Leominster	4.79	15.00	13.00
Lowell	4.91	14.50	12.50
Lynn	4.28	14.50	12.50
New Bedford	4.16	13.25	11.00
Newburyport	4.28	13.00	10.50
North Adams	3.78	14.00	12.00
Northampton	4.16	13.50	12.00
Norwood	4.54	14.00	12.00
Peabody	4.28	14.50	12.50
Pittsfield	3.78	14.25	11.50
Salem	4.28	14.50	12.50
Springfield	4.03–4.16	14.50	11.75
Taunton	4.40	14.65	12.00
Westfield	4.03	14.50	12.00
Woburn	4.54	14.00	12.00
Worcester	4.41	14.90	12.65
Boston	4.28	13.75	11.75
Suburbs	4.28–4.54	13.75	11.75

Freight tariffs from mines to tidewater:
To Port Richmond (Philadelphia) for transshipment to Boston, $2.09. Barge rate, about $1.80.
To Hoboken, N. J. (New York City Harbor) for transshipment to Boston, $2.39. Barge rate, about $1.00.

Table 7.—Population, Number of Dealers and their Deliveries of Domestic-sized Anthracite for Certain Representative Municipalities of Massachusetts

City or Town	Population (1930)	Number of Dealers	Deliveries (Net Tons)		
			1931–1932 (Coal Year)	1932–1933 (8 months of Coal Year)	†1932–1933 8 months of Coal Year) Foreign Anthracite
Boston District*	1,619,616	121	1,436,789	749,817	144,655
Adams	12,697	5	12,753	6,638	0
Brockton	63,797	12	35,692	14,818	2,613
Fall River	115,274	9	60,312	28,402	3,049
Fitchburg	40,692	8	27,333	12,605	483
Gloucester	24,204	5	32,573	14,725	3,832
Greenfield	15,500	5	20,180	9,046	265
Haverhill	48,710	15	33,249	29,411	4,458
Holyoke	56,537	7	44,213	25,727	58
Lawrence	85,068	29	68,482	33,771	10,074
Leominster	21,810	7	17,870	8,737	1,089
Lowell	100,234	22	64,248	29,357	4,093
Lynn	102,320	11	66,190	38,138	15,877
New Bedford	112,597	10	118,647	55,529	117
Newburyport	15,084	5	36,486	20,666	842
North Adams	21,621	10	19,860	11,774	0
Northampton	24,381	7	36,128	19,123	65
Norwood	15,049	5	17,798	10,241	2,805
Peabody	21,345	7	15,946	6,850	649
Pittsfield	49,677	11	63,579	35,668	410
Salem	43,353	15	61,408	30,609	3,912
Springfield	149,900	19	133,947	65,675	801
Taunton	37,355	5	31,808	14,913	923
Westfield	19,775	5	18,965	7,054	43
Woburn	19,434	7	18,155	6,697	762
Worcester	195,311	24	148,953	84,222	3,084

*Boston District includes the following cities and towns: Arlington; Belmont, Boston Proper; Brighton; Brookline; Cambridge; Charlestown; Chelsea; Dorchester; East Boston; Everett; Hyde Park; Jamaica Plain; Malden; Mattapan; Medford; Melrose; Milton; Neponset; Newton; Quincy; Readville; Revere; Roslindale; Roxbury; Somerville; South Boston; Waltham; Watertown and Winthrop.
†Foreign anthracite deliveries included in other Anthracite deliveries.

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BOOKBINDING CO., INC.

MAY 1991

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